

Social Impact Assessment Report

October: 2021

Project ID: P154990

Sub-Project: Up-gradation of Hamary-Sultanpora-Nowgam to Sumbal Bridge (District Baramulla and Bandipora), Kashmir (Package-2)

**Jhelum Tawi Flood Recovery Project
(World Bank Funded)**

Prepared by: PIU(Kashmir), JK ERA for the World Bank

Table of Contents

Definition of Words and Phrases	8
Affected Persons (APs)	8
1. Background Introduction	14
1.1 Project Background	14
1.2 Project Development Objective	15
1.3 Project Components	15
The project is comprised of the following seven components:	15
1.4 Sub- Project Background	15
1.5 Sub-Project Description	16
1.6 Benefits of the Sub-Project	16
1.7 Need for Social Impact Assessment	16
1.8 Need for SIA of Hamary-Sultanpora-Nowgan to Sumbal bridge road	17
1.9 Objective of Social Impact Assessment	17
1.10 Methodology adopted for the SIA	17
1.11 Structure of SIA Report	19
2. Project Description	20
2.1 Description of the Project	20
2.2 Sub-Project Description	21
2.3 Project Location	21
2.4 Details of the Existing Project Road	22
2.4.1 The embankment, Carriageway, and Shoulder	22
2.4.2 Horizontal and vertical alignment	23
2.4.3 Pavement Condition	23
2.4.4 Cross Drainage Structures	24
2.4.5 Existing Drains	25
2.4.6 Existing Protection Wall (Retaining wall)	26
2.4.7 Existing Pavement Composition	28
2.4.8 RoW Details of Sub-Project Road	32
2.4.9 Major Utilities Along the Existing Road	33
2.5 Proposed Activities (Improvement & Upgradation)	33
2.5.1 Carriageway/ Roadway Width	34
2.5.2 Horizontal and vertical alignment	37
2.5.3 Improvement of Sight Distance	38

2.5.4	Improvement of Cross Drainage Structures	38
2.5.5	Protective Works	39
2.5.6	Pavement Design	39
2.5.7	Rehabilitation of existing pavement	40
2.5.8	Traffic Safety and Other Appurtenances	44
3.	Legal and Regulatory Framework	47
3.1	Operational Policies of World Bank	47
3.2	World Bank's Environment Health and Safety Guidelines	47
3.3	National & Policies of U.T. of J&K	48
3.4	Other Central and State acts which may be applicable in the Sub-project:	49
4.	Socio-Economic Profile of The Project Area	51
4.1	Socio- Economic data of Baramulla district	51
4.2	Socio- Economic data Bandipora district	52
4.3	Socio-Economic Profile of Sub-Project villages	53
5.	Analysis of Alternatives	57
5.1	'Without' and 'With' Project Scenario'	57
5.1.1	'Without' Project Scenario	57
5.1.2	'With' Project Scenario	57
6.	Stakeholder's Consultation	58
6.1	Identification of Stakeholder	58
6.2	Objective of Stakeholder's Consultation	58
6.3	Approach for Consultation	59
6.4	Details of Public Consultation in the sub-project road	59
6.5	Information's Shared	60
6.6	Feedback received	60
7.	Analysis of Social Impacts	62
7.1	Impact on Land	62
7.2	Impacts on Structures	63
7.3	Impacts on Livelihood	63
8.	Mitigation Measures	64
8.1	Social Management Plan	64
8.2	Objectives	64
8.3	Scope	65
8.4	Context for the SMP	65
8.5	Methodology for SMP Preparation	65

8.6	Probable social issues that may arise during the construction stage	66
8.7	Social Management Plan	66
8.8	Gender Action Plan	71
8.8.1	Status of Women in J&K	71
8.8.2	Legal Provision Related to Women in J&K	72
8.8.3	Strategy	73
8.8.4	Avoiding Gender based violence	74
8.9	Labor influx and Labor Management	74
8.9.1	Objectives	75
8.9.2	General Requirements	75
8.9.3	Hiring & Recruitment Procedures	76
8.9.4	Worker’s Accommodation	77
8.9.5	Security	77
8.9.6	Provisions for Drinking Water	78
8.9.7	Cooking Arrangements	78
8.9.8	Waste Water Generation	79
8.9.9	Medical facilities	79
9.	Monitoring and Evaluation	80
9.1	Safeguards Supervision	80
9.2	Concurrent Monitoring and Quarterly Reporting	80
9.3	Safeguards Monitoring Plan	80
9.4	Independent Safeguard Audits	81
9.5	Right to Information and Disclosure	81
10.	Grievance Redressal Mechanism	82
10.1	Composition of Grievance Redress Committee (GRC) at various levels of the project	82
10.2	Approach to GRC	84
10.3	Legal Options to Aggrieved persons/PAPs	85
11.	Institutional Arrangement	86
11.1	Institutional Arrangement in the project	86
11.2	Implementation Stage	86
12.	Annexures	88
	Annexure1: Environment and Social Screening Data Sheets	88
	Annexure 2: Geo Location of the sub-project road	92
	Annexure 3: Encumbrance Free Certificate issued by PIU.	94

Annexure 4: RoW confirmation by Chief Engineer (PWD) Kashmir	95
Annexure 5: Newspaper notification for inviting objections	96
	96
Annexure 6: Reconfirmation of RoW by PMU	98
Annexure 7: Plan and Profile	99
Annexure 8: Photograph of the Roads	106
Annexure 9: Public Consultation (15.09.2019)	107

List of Tables

Table 1: List of Existing Cross Drainage Structures	24
Table 2: Details of existing Drain	25
Table 3: List of Existing protection Wall.....	26
Table 4: Details of Existing Pavement Composition	28
Table 5: Overview of the proposed road	33
Table 6: Detail of Typical Cross Section Schedule.....	36
Table 7: Details of proposed culverts.....	38
Table 8: details of Road signages	44
Table 9: World Bank’s Operational Policies	47
Table 10: Social impacts & Mitigatory Measures	66

List of Figures

Figure 1: Overview of Proposed Road in Harmary-Sultanpora-Nowgam to Sumbal Bridge road22	
Figure 2: Structure of GRM	84

ABBREVIATIONS

BPL	Below Poverty Line
CBO	Community Based organisations
COI	Corridor of Impact
CPR	Common Property Resources
DC	District Collector
DSC	Design & Supervision Consultant
DED	Detailed Engineering Design
EIA	Environmental Impact Assessment
EP	Entitlement/Eligible Persons
ERA	Economic reconstruction Agency
ESMF	Environment and Social Management Framework
ESSR	Environment & Social Screening Report
EM	Entitlement Matrix
GBV	Gender Based violence
GESI	Gender Equality and Social Inclusion
Govt.	Government
GRC	Grievance Redressal Cell/Committee
HP	Halqa Panchayat
IRC	Indian Road Congress
IDA	International Development Agency
IRAP	International Road Assessment Programme
JTFRP	Jhelum Tawi Flood Recovery Project
J&K	Jammu & Kashmir
DSC	Design & Supervision Consultant
DEA	Department of Economic Affairs
DPR	Detailed Project report

NGO	Non-Governmental Organization
OP	Operational Policy
PAP	Project Affected Person
PAF	Project Affected Family
PDF	Project Displaced Family
PDP	Project Displaced Person
PIU	Project Implementation Unit
PMU	Project Management Unit
PMC	Project Management Consultant
R&R	Resettlement & Rehabilitation
RAP	Resettlement Action Plan
RFCTLAR&R	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement act, 2013
RDNA	Rapid Damage and Needs Assessment
ROW	Right of Way
RTI	Right to information Act
SAR	Social Assessment Report
SES	Socio- Economic Survey
SEO	Site Engineering Office
SH	State Highway
SIA	Social Impact Assessment
SC/ST	Schedule Caste and Schedule Tribe
SMF	Social Management Framework
SMP	Social Management Plan
SOR	Schedule of Rates

Definition of Words and Phrases

Affected Persons (APs)

Affected Persons (APs), for this Project, means all the people directly affected by a project-related land acquisition that leads to their physical relocation or loss of assets, or access to assets, with adverse impacts on livelihoods. This includes any person, household (sometimes referred to as project affected family), firms, or public or private institutions who on account of project-related land acquisition would have their;

1. standard of living adversely affected;
2. right, title or interest in all or any part of a house, land (including residential, commercial, artisanal mining, agricultural, plantations, forest and/or grazing land), water resources or any other moveable or fixed assets acquired, possessed, restricted or otherwise adversely affected, in full or in part, permanently or temporarily; and/or
3. business, occupation, place of work or residence, or habitat adversely affected, with or without displacement. APs therefore include;
 - persons affected directly by the acquisition or clearing of the right-of-way or construction work area;
 - persons whose agricultural land or other productive assets such as mining, trees or crops are affected;
 - persons whose businesses are affected and who might experience loss of income due to project-related land acquisition impacts;
 - persons who lose work/employment as a direct result of project-related land acquisition; and
 - people who lose access to community resources/property as a result of project-related land acquisition.

Census

Census means the pre-appraisal population record of potentially affected people, which is prepared through a count based on the village or other local population data or census.

Compensation

Compensation means payment in cash or kind for an asset to be acquired or affected by a project at replacement costs.

Cut-off-date

Cut-off-date means the date after which people will not be considered eligible for compensation if they are not included in the list of APs as defined by the census. Normally, the cut-off date for the titleholders is the date of the detailed measurement survey.

Displacement

Displacement means either physical relocation or economic displacement directly caused by project-related land acquisition.

Encroachers

Encroachers mean those persons who extend their property beyond that for which they hold a Title are encroachers and would not be eligible for compensation for land for which they do not possess a title.

Entitlement

Entitlement means the range of measures comprising cash or kind compensation, relocation cost, income rehabilitation assistance, transfer assistance, income substitution, and relocation which are due to /business restoration which is due to APs, depending on the type and degree nature of their losses, to restore their social and economic base.

Livelihood Restoration

Livelihood Restoration means the measures required to ensure that APs have the resources to at least restore, if not improve, their livelihoods. Restoration of livelihood of all APs is one of the key objectives of the World Bank's resettlement policy. It requires that people are given the means and assistance necessary for them to improve, or at least restore, their livelihood and living conditions to pre-project levels. Inventory of Losses means the pre-appraisal inventory of assets as a preliminary record of affected or lost assets.

Land Acquisition

Land Acquisition means the process whereby a person is compelled by a public agency to alienate all or part of the land s/he owns, possesses, or uses, to the ownership and possession of that agency, for public purposes, in return for prompt and fair compensation. This includes direct acquisition and easement.

Non-Titled

Non-titled means those who have no recognizable rights or claims to the land that they are occupying and includes people using private or state land without permission, permit, or grant.

Rehabilitation

Rehabilitation means the assistance provided to severely affected APs to supplement payment of compensation for acquired assets to improve, or at least achieve full restoration of, their pre-project living standards and quality of life to pre-project level.

Resettlement

Resettlement means all social and economic impacts that are permanent or temporary and are:

- (i) caused by the acquisition of land and other fixed assets,
- (ii) by the change in the use of land, or
- (iii) restrictions imposed on land as a result of the project.

Resettlement Plan

Resettlement Plan means the time-bound action plan with budget setting out resettlement strategy, objectives, entitlements, actions, responsibilities, monitoring, and evaluation.

Structures

Structures mean all structures affected, or to be acquired, by the project such as living quarters, wells, hand pumps, agricultural structures such as rice bins, animal pens, stores/warehouses, commercial enterprises including roadside shops and businesses.

Squatters

Squatters mean the same as a non-titled person i.e. those people without legal title to land and/or structures occupied or used by them. World Bank policy explicitly states that such people cannot be denied assistance to restore livelihoods and living conditions based on the lack of title.

Vulnerable

Vulnerable means any people who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement i.e; (i) single household heads with dependents; (ii) disabled household heads; (iii) poor households; (iv) elderly households with no means of support; (v) the landless or households without the security of tenure; and (vi) ethnic minorities.

Social Impact Assessment (SIA)

Social impact assessment (SIA) is the process of identifying and managing the social impacts of industrial projects. It can also be applied to policies, plans, and programs. SIA is used to predict and mitigate negative impacts and identify opportunities to enhance benefits for local communities and broader society.

Project Area Influence

The area likely to be affected by the project, including all its ancillary aspects, such as power transmission corridors, pipelines, canals, tunnels, relocation, and access roads, borrow and disposal areas, and construction camps, as well as unplanned developments induced by the project (e.g., spontaneous settlement, logging, or shifting agriculture along access roads).

Executive Summary

The catastrophic deluge of September 2014 has adverse impact on the socio-economic aspects of the Union territory of Jammu and Kashmir (erstwhile state) and massive infrastructure damaged in which not only Srinagar was most affected but other districts as well. It left behind a trail of siltation in most of the water bodies as environmental degradation, which is always synonymous with major floods. In connection to the catastrophic flood, a mission of the World Bank visited the Union territory of Jammu and Kashmir (erstwhile state) during February 1-6, 2015 on request of the Government of India to review and assess the damages to produce a rapid multi-sectoral assessment report of the damages and needs. The RDNA estimates the total damages and loss caused by floods at about INR 211,975 million (US\$ 3,550.45), most of it to housing, livelihoods, and roads and bridges, which combined represented more than 70% of the damages in terms of value.

Based on the RDNA results, restoration works underway, and discussions with the GoJ&K, "Jhelum and Tawi Flood Recovery Project (JTFRP)" will focus on restoring critical infrastructure using international best practice on resilient infrastructure. One of the sub-projects identified under Component 2 of JTFRP is "Upgradation of Hamary-Sultanpora-Nowgan to Sumbal bridge road" in Baramulla & Bandipora districts of Kashmir. The proposed subproject has a total length of 12.696 kms and traverses through the number of settlements of Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam villages.

Sub-projects under "Jhelum and Tawi Flood Recovery Project" commonly known as JTFRP have a prior requirement of screening which is based on three categories; viz., nature of the project, size of the project and location of the project with a sensitive area criteria. The screening for this sub-project has been conducted to identify the potentially significant social issues of the sub-project at an early stage for detailed Environmental and Social impacts. The screening exercise did not envisage any adverse impact due to sub-project.

The project information was shared and disseminated with the stakeholders in the public consultations which were conducted successfully with the people of the Hamray project area on 15.09.2019. Information about proposed sub-project, available RoW and other things were shared with the locals.

Project Manager (Transport, Kashmir division), JK, ERA, vide letter no ERA/PMT/20/1126 dated 07.09.2020 has issued an encumbrance free certificate which confirms that upgradation and strengthening of the road for a length of 12.696 kms under JTFRP shall be restricted to the existing and available RoW. Further, it is also certified that there are no residential commercial,

religious structure or any CPR in the existing RoW. The letter issued by the Project Manager, also refers the certificate (letter no. CE/RBK/HD/7165, dated 14.06.2019) issued by the Chief Engineer, PWD(R&B) department in which it has been mentioned that the existing RoW for the sub-project road is 5.50 meters.

The revenue record of the proposed sub-project could not be obtained from the concern department by JK ERA. Since the revenue record of the proposed sub-project was not available, therefore PMU, JTFRP published a notice in the two local newspapers namely “The Daily Tameel Irshad” and “Kashmir Images” on 15.09.2021, informing general people and those who are likely to be benefitted/affected in particular, about the upgradation of this road sub-project within the existing right of way under World Bank funding. It also called for any objection from the local people regarding use of RoW, along with supporting documentary evidence within 07 days of publication of the notice in the newspaper. The office of Director safeguards did not receive any objection or claim from anyone even after the lapse of one month of the publication of notice in two local newspapers. Thereafter, Director Safeguards issued an official letter vide no. ERA/DSG/PS/94-99 dated 25.10.2021 regarding encumbrance free RoW detailing therein the process followed to reconfirm the ROW ownership status.

Therefore, on the basis of certificate issued by Project Manager (Transport, Division Kashmir), site visits, approved DPR and notice published in the newspaper it can be said that the sub-project does not have any adverse impact on the assets or on the livelihood of anyone.

However, if during execution, there is any unanticipated impact of the sub-project on any asset, the issue shall be addressed as per the provisions of Environment & Social Management Framework (ESMF) for the project, applicable policies of the WB and that of U.T of J&K.

1. Background Introduction

1.1 Project Background

In September 2014, Jammu & Kashmir experienced torrential monsoon rains in the region causing major flooding and landslides. The continuous spell of rains from September 2-6, 2014, caused Jhelum, Chenab, and Tawi Rivers as well as many other streams/tributaries to flow above the danger mark. The Jhelum River also breached its banks flooding many low-lying areas in the Kashmir region, including the capital. In many districts, the rainfall exceeded the normal by over 600%. In the Jammu division also, many districts received rainfall above normal. Jammu district itself recorded over 467.3 mm of rainfall during Sept 2014, which is 339% excess of the normal (Source-Indian Meteorological department website). The Indian Meteorological Department (IMD) records precipitation above 244.4 mm as extremely heavy rainfall, and J&K received 558mm of rain in the June- September period, as against the normal 477.4 mm.

Due to the unprecedented heavy rainfall, the catchment areas particularly the low-lying areas were flooded for more than two weeks. Some areas in urban Srinagar stayed flooded for 28 days. Water levels were as high as 27 feet in many parts of Srinagar. The areas from the main tributaries of river Jhelum vis-à-vis Brengi nallah, Vishav nallah, Lider nallah and Sandran nallah started overflowing due to the heavy rainfall causing water levels in Jhelum river to rise. Subsequently, the discharge of the river Suran was 200 thousand cusecs as against an average of 50 thousand cusecs. With the excessive discharge of water, the river Suran affected the basin areas and also took a different course at various locations causing damages to the surrounding villages in the catchment area. Water levels also increased in the rivers of Chenab and Tawi, both of which were flowing above normal levels. Due to the rivers overflowing nearly 20 districts of the Union territory of Jammu and Kashmir (erstwhile state) were impacted.

A joint team led by the **Department of Economic Affairs (DEA), GoI**, with representation from the World Bank visited J&K on October 21, 2014. Subsequently, GoI has sent a request to the World Bank on January 5, 2015, to field a Joint Rapid Damage and Needs Assessment (RDNA) Mission within the Union territory of Jammu and Kashmir (erstwhile state). In response, a mission of the World Bank visited the Jammu and Kashmir (erstwhile state) during February 1-6, 2015 to produce a rapid multi-sectorial assessment report of the damages and needs. The RDNA estimates the total damages and loss caused by floods at about INR 211,975 million (US\$ 3,550.45), most of it to housing, livelihoods, and roads and bridges, which combined represented more than 70% of the damages in terms of value.

Public service infrastructure and equipment of hospitals and education centers were also severely damaged and are still not fully operational.

Based on the Rapid Damage Needs Assessment (RDNA) results, restoration works underway, and discussions with the GoJ&K, the project will focus on restoring critical infrastructure using international best practices on resilient infrastructure. Given the Jammu and Kashmir (erstwhile state)'s vulnerability to both floods and earthquakes, the infrastructure will be designed with upgraded resilient features and will include contingency planning for future disaster events. Therefore, the project aims at both restoring essential services disrupted by the floods and improving the design standard and practices in the Jammu and Kashmir (erstwhile state) to increase resilience.

1.2 Project Development Objective¹

The Project Development Objective (PDO) is to support the recovery and increase disaster resilience in targeted areas of the Jammu and Kashmir (erstwhile state) and increase the capacity of the Jammu and Kashmir (erstwhile state) entities to respond promptly and effectively to an eligible crisis or emergency.

1.3 Project Components

The project is comprised of the following seven components:

1. Reconstruction and strengthening of critical infrastructure
2. Reconstruction of roads and bridges
3. Restoration of urban flood management infrastructure
4. Strengthening and restoration of livelihoods
5. Strengthening disaster risk management capacity
6. Contingent Emergency Response
7. Implementation Support.

1.4 Sub- Project Background

Component 2 of the "Jhelum and Tawi Flood Disaster Recovery Project" is 'to restore and improve the connectivity disrupted due to the disaster through the reconstruction of damaged roads and bridges. The component will finance and support the reconstruction of about 300 km. of damaged roads and associated drainage works, retaining walls, breast walls, and other structures to increase resilience, designed to be seismic resilient (as per the guidelines of the Bureau of Indian Standards) and concerning topography and

¹ Source: JTFRP- Environmental & Social Management Framework (ESMF), 2015.

hydrology (as per the guidelines of the Indian Roads Congress, the Ministry of Road Transport and Highways), and projected demographic changes.

One of the identified roads undertaken in component 2 for the Upgradation is of Hamary-Sultanpora-Nowgan to Sumbal bridge sub-project in Baramulla & Bandipora districts of Kashmir province. The proposed subproject has a total length of 10.50 KMs and traverses through a number of settlements of Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam villages.

1.5 Sub-Project Description

Categorically, it is a single-lane road village road falling under plain terrain, having a low intensity of commercial vehicles. From Km 0 to Km 8, project road passing through Baramulla district and rest in Bandipora district. The Existing BT surface is in fair to poor condition. The average existing carriageway width is 2.5 m which is also lesser than a single lane road (3 m). Project road passing through several habitations like Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam. From Ch 7.608 Km to Km 7.916, a bridge is under construction over river Jhelum. Project Road passing through water logged area at several locations and protection work also require at different stretches to prevent soil erosion. Up-gradation will be proposed based on pavement study. Besides with provision of a few culverts and CC drain in built-up locations required.

1.6 Benefits of the Sub-Project

The reconstruction of the proposed road will be a great help to the farmers to transport agricultural products, children would be able to travel faster and safer to go to school, as well as the local people when accessing to basic facilities such as health center/hospital, markets, working place, place of worship, and other areas. Besides that, the road will have fewer bags of dust during the dry season which may aggravate the health condition of the children and elderly; unlike the condition of the road during the rainy season which is muddy and slippery, is risky for the lives of the road users especially those using bicycles and motorcycles.

1.7 Need for Social Impact Assessment

Social Impact Assessment (SIA) is a tool for anticipating and mitigating the potentially temporary and permanent adverse impacts of projects. It also helps in enhancing the positive outcomes of the sub-project. SIA alerts project planners (public and private bodies) as to the likely social and economic costs and benefits of a proposed project. The knowledge

of the potential costs, when weighed against the likely benefits of a project, helps decision-makers in deciding whether the project should be carried out, with or without modifications, or abandoned completely. The agency carrying out the SIA also develops a mitigation plan to overcome the potential negative impacts on individuals and communities.

The purpose of the SIA is to ascertain whether a project proposed by the developer is truly in the public purpose, and whether the project is located at a site which is least-displacing and requires the bare minimum amount of land.

1.8 Need for SIA of Hamary-Sultanpora-Nowgan to Sumbal Bridge Road

Social Impact Assessment study in the sub-project road was conducted to identify and assess the land requirement for the proposed sub-project besides identifying the temporary and permanent impacts. Hamary-Sultanpora-Nowgan to Sumbal bridge sub-project road is going to be improved and upgraded on existing alignment and the existing RoW is 6.55 meters. No additional land is required for improvement and up-gradation of the road. Though the sub-project does not require private land acquisition, therefore, the Social Impact Assessment was conducted to identify and assess any other impact on the people and communities due to project implementation such as any impact on private assets (of both titleholders and non-titleholders), on the livelihood of people, common property resources or any other type of impacts. Further, it will guide Executing Agency (EA) to prepare a sound Social Management Plan that will provide guidance to the contractor & PIU to manage social issues during execution and post execution.

1.9 Objective of Social Impact Assessment

The objective of SIA is as follows:

- To gather baseline data for assessment of impacts (both direct and indirect);
- To suggest mitigation measures to effectively manage potential adverse impacts;
- To involve local people in the SIA study and project activities.

1.10 Methodology adopted for the SIA

1. Defining the Impact area

The first step undertaken was to define the Area of Impact. For defining the project area (both directly and indirectly), a map that will show the project area was prepared. Besides, a field visit to the area were undertaken on 15.09.2019 to have a better understanding of the geographic limits of the area and the people living there.

2. Identifying the Information/Data Requirements and their Sources

The existing secondary data (census 2011) on impacts likely to follow from the project was reviewed and used for assessment purposes. This has provided disaggregated data according to caste, religion, sex, and other administrative categories, such as persons below the poverty line.

3. Public Consultation

Project-related information's were shared with all the concerned stakeholders in Hamray project area on 15.09. 2019 (annexure 9). This was the first step in developing plans for consultation and participation is to identify stakeholders who will be involved in the consultative processes. Since the sub-project does not envisage acquisition of assets such as land and structures and there is no adverse impact on the livelihood either. Therefore, only people residing along the sub-project road were involved in the consultation and identified as major stakeholder along with PIU, PMU and line departments. The basic questions to consider in identifying stakeholders include:

- Who will be directly or indirectly and positively and negatively affected?
- Who are the most vulnerable groups?
- Who might have an interest or feel that they are affected?
- Who supports or opposes the changes that the project will produce?
- Whose opposition could be detrimental to the success of the project?
- Whose cooperation, expertise, or influence would be helpful to the success of the project?

4. Conducting Screening

Social Impact Assessment (SIA) process began with screening. Screening was undertaken in the very beginning stages of project development. The purpose of screening was to screen out “no significant impacts” from those with significant impacts and get a broad picture of the nature, scale, and magnitude of the issues. This helped in determining the scope of detailed SIA that would be subsequently carried out. The screening results revealed that the project will not have any significant impact. It has been decided that the proposed road will be upgraded in the available RoW and there are no structures either commercial, residential or any CPR in the alignment of the road.

5. Carry Out Scoping in the Field

The next step was scoping. Essentially, this involves a visit to the project site, and consultation with all stakeholders. It is important to confirm their understanding of key issues. On-site appreciation of impacts is indispensable for projects that cause displacement on a large scale. The local knowledge can be invaluable in finding alternatives that help avoid or at least reduce the magnitude and severity of adverse impacts.

6. Developing a Mitigation Plan

SIA study helps and guides in the preparation of social mitigation and management plan for the envisaged and unanticipated impacts. In this study SMP has been prepared in consultation with the locals, PIU and other stakeholders which will serve as blueprint for managing and mitigating social issues/impacts during execution of the sub-project.

1.11 Structure of SIA Report

To present the findings of the SIA study, following information's have been presented in the following chapters:

Executive Summary

1. Introduction & Background
2. Project Description
3. Legal and Regulatory Framework
4. Socio-Economic Profile of the Project Impact Area
5. Analysis of Alternatives
6. Stakeholder's Consultation
7. Analysis of Social Impacts
8. Mitigation Measures
9. Grievance Redressal Mechanism
10. Institutional Arrangements
11. Monitoring and Evaluation

2. Project Description

2.1 Description of the Project

The Jammu & Kashmir region owing to its geographical and geo-climatic setting is a multi-hazard prone region that has experienced natural disasters like earthquakes, floods, landslides, avalanches, high-velocity winds, and snowstorms. Most of the project roads in Kashmir Valley fall in plain terrain whereas roads under Jammu Province are passing through hilly terrain. In Kashmir, Floods and flash floods are also frequent. Floods generally occur in the summer when heavy rains are followed by snowmelt. Flooding of the river Jhelum is the main cause of floods in the region. In Jammu province, hill roads are mainly damaged frequently during the beginning of summer due to snowmelt and due to heavy rain. Hill slopes are badly damaged and sliding comes on the roads as there is no such protection work exists towards hill slide slope. Even Jammu Srinagar National Highway is not unturned from it.

In September 2014, the northern region of India experienced torrential monsoon rains in the region causing major flooding and landslides. The continuous spell of rains from September 2nd to 6th, 2014, caused Jhelum and Chenab Rivers as well as many other streams/tributaries to flow above the danger mark. Due to the unprecedented heavy rainfall, the catchment areas particularly the low laying areas were flooded for more than two weeks. As a result, the main tributaries of river Jhelum vis-a-vis Brengi Nallah, Vishav Nallah, Lider Nallah, and Sundran Nallah started overflowing. The water level also increased in the rivers of Chenab and Tawi, both of which the water flowing above normal levels. Due to the rivers overflowing nearly 20 districts were impacted. The total damage and loss caused by the flood is about INR 211,975 million, most of it to housing, livelihoods, and roads and bridges, which combined represented more than 70% of the damages in terms of value. Public service infrastructure and equipment of hospitals and education centers were also severely damaged and are still not fully operational.

The project "Jhelum & Tawi Flood Recovery Project" will focus on restoring critical infrastructure using the international best practice of resilient infrastructure. Given the region's vulnerability to both floods and earthquakes, the infrastructure will be designed with upgraded resilient features and will include contingency planning for future disaster events. Therefore, a study followed by detailed reports on flood management aims at both restoring essential services disrupted by the floods and improving the design standards and practices to increase resilience.

Based on the RDNA results, restoration works underway, and discussions with the Govt. of J&K, "Jhelum and Tawi Flood Disaster Recovery Project (JTFRP)" will focus on restoring critical infrastructure using international best practice on resilient infrastructure. Component 2 of JTFRP is 'to restore and improve the connectivity disrupted due to the disaster through the reconstruction of damaged roads and bridges. The project will finance the restoration and improvement of about 27 damaged roads, as per the guidelines of the Indian Roads Congress, the Ministry of Road Transport and Highways.

2.2 Sub-Project Description

The sub project is Harmary-Sultanpora-Nowgam to Sumbal Bridge Road in Baramulla/ Bandipora District of Kashmir Division. The length of the road is 10.50 kms. The existing configuration of the road is a single lane. The road will be developed as a single-lane configuration road. From Km 0 to Km 8, project road passing through Baramulla District and rest on Bandipora District. The Existing BT surface is in fair to poor condition. The average existing carriageway width is 2.5 m which is also lesser than a single lane road (3 m). Project road passing through several habitations like Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam. From Ch 7.608 Km to Km 7.916, a bridge is under construction over river Jhelum. Project Road passing through water logged area at several locations and protection work also require at different stretches to prevent soil erosion.

2.3 Project Location

Categorically, it is a single-lane road village road falling under plain terrain, having the low intensity of commercial vehicles. From Km 0 to Km 8, project road passing through Baramulla District and rest on Bandipora District. Project road passes through several habitations like Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam. From Ch 7.608 Km to Km 7.916, a bridge is under construction over river Jhelum. Geo location maps attached as annexure 2.

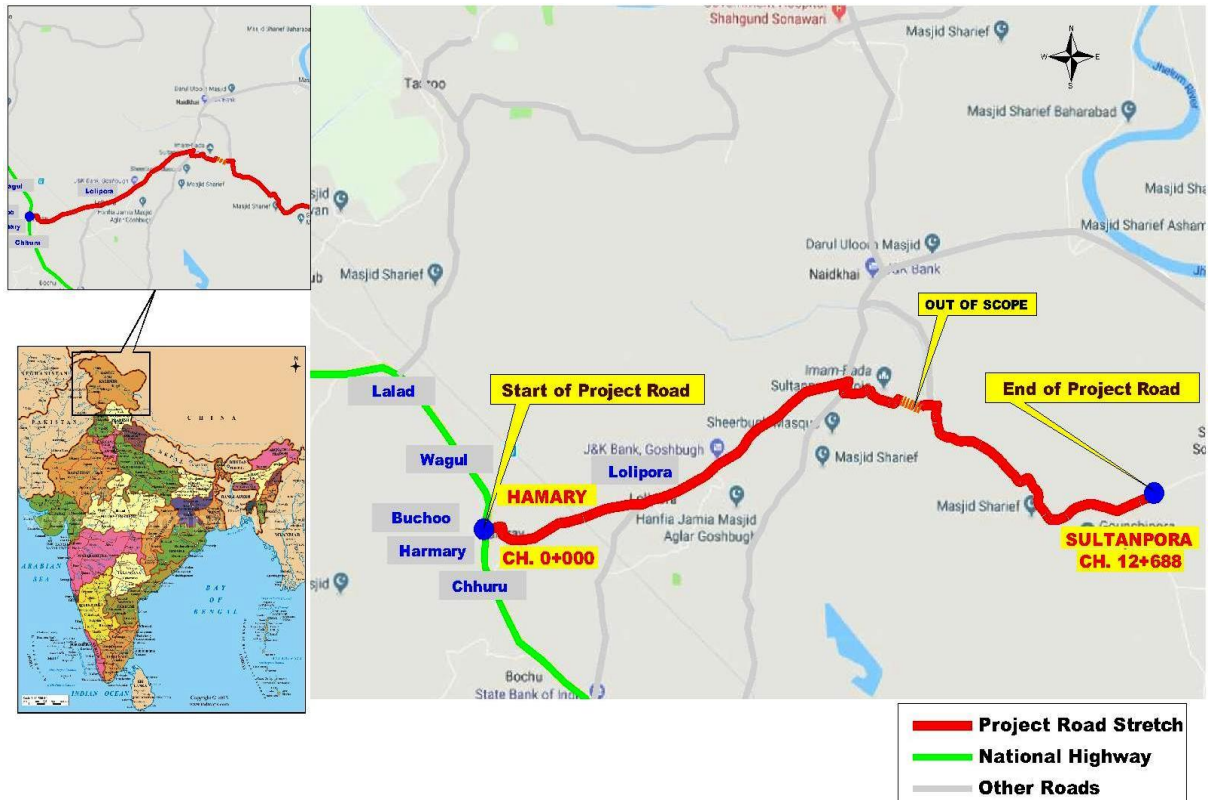


Figure 1: Overview of Proposed Road in Harmary-Sultanpora-Nowgam to Sumbal Bridge road

2.4 Details of the Existing Project Road

Development of the project road is essential for the betterment economy of Kashmir Province. Categorically, it is a single-lane road village road falling under plain terrain, having the low intensity of commercial vehicles. From Km 0 to Km 8, project road passing through Baramulla District and rest on Bandipora District. The Existing BT surface is in fair to poor condition. The average existing carriageway width is 2.5 m which is also lesser than a Single lane road (3 m). Project road passing through several habitations like Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam. From Ch 7.608 Km to Km 7.916, a bridge is under construction over river Jhelum. Project Road passing through water logged area at several locations and protection work also require at different stretches to prevent soil erosion. Up-gradation will be proposed based on pavement study. Besides with provision of a few culverts and CC drain in built-up locations required.

2.4.1 The embankment, Carriageway, and Shoulder

The average width of the existing carriageway varies from 2.75 m to 3.00 m with an average shoulder width of 1.00 m resulting in the average formation width varies from 4.75

m to 5.00 m. The details of carriageway, Surface & Shoulder condition, etc are mentioned in Annexure III of DPR.

2.4.2 Horizontal and vertical alignment

Project road runs in Plain terrain having several sharp U-turns with non-standard horizontal curves. The existing vertical profile is good.

2.4.3 Pavement Condition

The existing pavement is of flexible for the entire stretch is in fair to poor condition. Condition of pavement severely damaged at several stretches.



Km 4.000



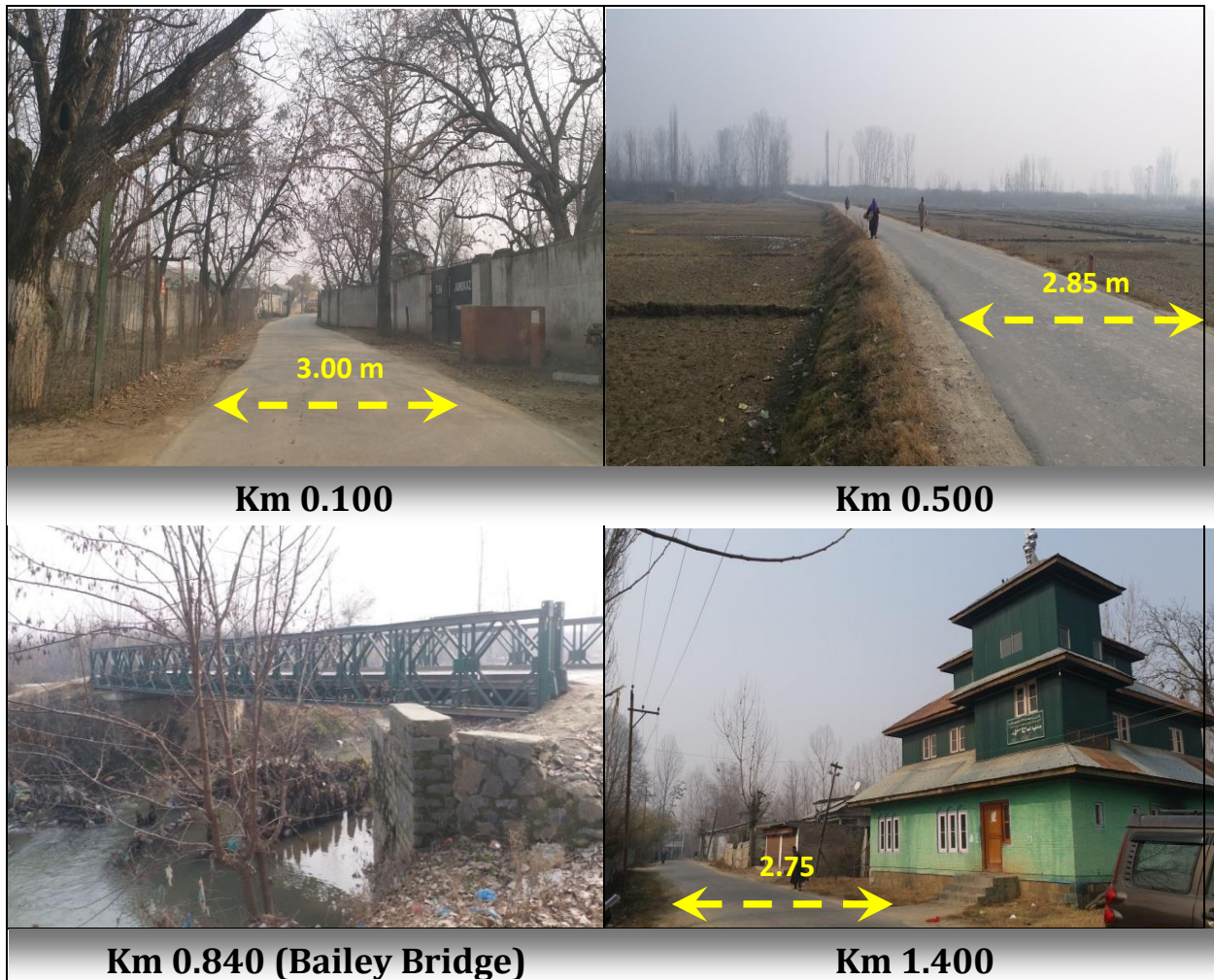
Km 7.000



Km 8.500



Km 10.000



2.4.4 Cross Drainage Structures

There are 15 nos. of CD structure in the project road, out of which 2 nos. HP culverts, 7 nos Slab culverts, 3 damaged culverts, and 2 Bridge, and 1 ROB exist on the project stretch. The details are given in Table 1.

Table 1: List of Existing Cross Drainage Structures

Sl No.	Existing Structures			
	Chainage	Types	Span(m)	Width(M)
1	0+400	Slab Culvert	3.8x1.3	4.209
2	0+488	Bridge	15	5.386
3	0+846	Iron Bridge	21	4.202
4	1+635	ROB	25	12.733

Sl No.	Existing Structures			
	Chainage	Types	Span(m)	Width(M)
5	1+822	Pipe	1 x 0.6	7.262
6	2+741	Slab Culvert	2.8x1.3	4.976
7	3+569	Pipe	1 x 0.6	7.6
8	3+771	Damage Culvert	-	6.543
9	3+828	Damage Culvert	-	8.067
10	3+869	Damage Culvert	-	6.766
11	4+283	Slab Culvert	1.5	6.66
12	4+600	Slab Culvert	1	11.396
13	5+750	Slab Culvert	1.0x1.0	5.016
14	6+400	Slab Culvert	1.5	19.426
15	7600 to 8200	Under Construction Bridge with Approach Road'	-	
16	12+210	Culvert	1.8	4.179

* C&P – Chocked & Poor, R&NC-Replaced & New Construction

2.4.5 Existing Drains

In this project road, there are only 1102.19 m earthen (unlined) drain exists at different stretches. Details are shown in table 2.

Table 2: Details of existing Drain

Sl No.	Chainage		Left	Right
	From	To	Length (m)	
1	0+290	0+380	95.213	-
2	1+490	1+590	-	102.852
3	1+820	1+852	42.397	-
4	1+928	1+969	40.512	-

Sl No.	Chainage		Left	Right
	From	To	Length (m)	
5	3+354	3+481	-	134.465
6	3+468	3+514	46.168	-
7	3+572	3+771	-	202.446
8	3+869	4+008	-	151.81
9	4+062	4+126	-	63.528
10	4+252	4+274	-	22.228
11	5+672	5+742	-	69.901
12	7+125	7+218	93.244	-
13	7+222	7+243	-	21.262
14	7+375	7+391	-	16.166
Total Length			317.534	784.658
Cross Road (11+000)				
1	0+049	0+293	-	244.498
Cross Road (6+400)				
1	0+000	0+011	-	10.809

2.4.6 Existing Protection Wall (Retaining wall)

In this project road, there are only 684.49 m Retaining Wall exists in the form of stone masonry or PCC at different stretches are not in good condition. Details are shown in table 3.

Table 3: List of Existing protection Wall

Sl No.	Chainage		Retaining Wall	
	From	To	Left	Right
			Length (m)	

Sl No.	Chainage		Retaining Wall	
			Left	Right
	From	To	Length (m)	
1	0+272	0+281	-	9.336
2	1+616	1+622	5.843	4.212
3	1+647	1+647	4.200	5.892
4	8+280	8+286	-	5.769
5	8+428	8+440	-	11.933
6	8+491	8+506	-	15.100
7	8+637	8+653	-	15.927
8	8+688	8+703	-	14.806
9	8+831	8+850	-	19.490
10	8+919	8+969	-	50.180
11	8+982	9+100	-	117.657
12	9+100	9+186	-	86.449
13	9+350	9+372	-	21.785
14	10+030	10+049	-	19.454
15	10+130	10+146	-	15.731
16	10+253	10+285	31.734	-
17	10+277	10+320	43.030	-
18	10+631	10+636	-	5.000
19	10+753	10+771	-	18.494
20	10+777	10+878	100.888	-
21	11+241	11+249	-	8.018
22	11+247	11+252	5.4575	-

Sl No.	Chainage		Retaining Wall	
			Left	Right
	From	To	Length (m)	
23	11+980	12+028	48.102	-
Total Length			239.255	445.231

2.4.7 Existing Pavement Composition

The said road is a very old road that was initially constructed not based on traffic on the section but to give connectivity to hillside villages. Afterward, several maintenances works of different specification have been undertaken over the road. Specification adopted for such maintenance widely varies from year to year as well as from stretches to stretches. But during heavy rain in the year 2014, the alignment is severely damaged and connectivity with villages was cut off for a few weeks. Trial Pit Investigation has been conducted for detailing pavement composition at different locations and on average following composition is found as existing hard crust as mentioned in table 4.

The average pavement thickness is 319 mm. The total thickness of the hard crust varies in between 170 mm – 410 mm where existing crust comprises of GSB consists of compacted granular materials having thickness 100 mm to 200 mm thick (average 162 mm), partly disintegrated base course with WBM materials of 60 mm to 170 mm thick (average 106 mm) and Bituminous/ Binder course varying from 40 mm to 100 mm thick (average 62 mm). From Km 7.500 to Km 9.000, no BT surface exists (only Gravel Surface available). A detail of pit wise existing pavement compositions is provided in table 4.

Table 4: Details of Existing Pavement Composition

Location	Side	Description of Layers	Individual (mm)	Thickness (mm)			
				Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
RD 0.000 / TP 1	RHS	Bituminous	40	40	150	160	350
		WBM	150				
		Metal Soling	160				

Location	Side	Description of Layers	Individual (mm)	Thickness (mm)			
				Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
RD 0.500 / TP 2	LHS	Bituminous	50	50	70	120	240
		WBM	70				
		Metal Soling	120				
RD 1.000 / TP 3	LHS	Bituminous	60	60	170	170	400
		WBM	70				
		Metal Soling	170				
RD 1.500 / TP 4	RHS	Bituminous	50	50	120	170	340
		WBM	120				
		Metal Soling	170				
RD 2.000 / TP 5	RHS	Bituminous	60	60	150	200	410
		WBM	150				
		Metal Soling	200				
RD 2.500 / TP 6	LHS	Bituminous	60	60	150	200	410
		WBM	150				
		Metal Soling	200				
RD 3.000 / TP 7	LHS	Bituminous	50	50	130	180	360
		WBM	130				
		Metal Soling	180				
RD 3.500 / TP 8	LHS	Bituminous	60	60	60	135	255
		WBM	60				
		Metal Soling	135				
RD 4.000 / TP 9	RHS	Bituminous	50	50	70	130	250
		WBM	70				

Location	Side	Description of Layers	Individual (mm)	Thickness (mm)			
				Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
		Metal Soling	130				
RD 4.500 / TP 10	RHS	Bituminous I	55	55	125	185	365
		WBM	85				
		Bituminous II	40				
		WBM	60				
		Metal Soling	125				
RD 5.000 / TP 11	LHS	Bituminous I	80	80	110	190	380
		WBM	70				
		Bituminous II	40				
		WBM	60				
		Metal Soling	130				
RD 5.500 / TP 12	RHS	Bituminous	90	90	96	165	351
		WBM	96				
		Metal Soling	165				
RD 6.000 / TP 13	RHS	Bituminous	100	100	100	170	370
		WBM	100				
		Metal Soling	170				
RD 6.500 / TP 14	LHS	Bituminous	75	75	115	175	365
		WBM	115				
		Metal Soling	175				
RD 7.000 / TP 15	LHS	Bituminous	80	80	120	180	380
		WBM	120				
		Metal Soling	180				

Location	Side	Description of Layers	Individual (mm)	Thickness (mm)			
				Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
RD 7.500 / TP 16	RHS	Bituminous			70	100	170
		WBM	70				
		Metal Soling	100				
RD 8.000 / TP 17	LHS	Bituminous			70	110	180
		WBM	70				
		Metal Soling	110				
RD 8.500 / TP 18	RHS	Bituminous			70	160	230
		WBM	70				
		Metal Soling	160				
RD 9.000 / TP 19	RHS	Bituminous			70	170	240
		WBM	70				
		Metal Soling	170				
RD 9.500 / TP 20	LHS	Bituminous	55	55	123	165	343
		WBM	123				
		Metal Soling	165				
RD 10.000 / TP 21	LHS	Bituminous	60	60	130	170	360
		WBM	130				
		Metal Soling	170				
RD 10.500 / TP 22	RHS	Bituminous	58	58	70	150	278
		WBM	70				
		Metal Soling	150				
RD 11.000 /	RHS	Bituminous	60	60	70	160	290
		WBM	70				

Location	Side	Description of Layers	Individual (mm)	Thickness (mm)			
				Surface (Bituminous) in mm	Base Course in mm	Sub-Base Course in mm	Total
TP 23		Metal Soling	160				
RD 11.500 / TP 24	LHS	Bituminous	55	55	130	160	345
		WBM	130				
		Metal Soling	160				
RD 12.000 / TP 25	LHS	Bituminous	60	60	85	165	310
		WBM	85				
		Metal Soling	165				
RD 12.500 / TP 26	RHS	Bituminous	50	50	120	150	320
		WBM	120				
		Metal Soling	150				
Average Thickness from Km 0.000 to Km 12.500				62	106	162	
Minimum Thickness from Km 0.000 to Km 12.500				40	60	100	170
Maximum Thickness from Km 0.000 to Km 12.500				100	170	200	410

2.4.8 RoW Details of Sub-Project Road

The sub-project road exists on government land and 5.5 meters of RoW is available. Project Manager (Transport, Kashmir division), JK, ERA vide letter no ERA/PMT/20/1126 dated 07.09.2020 provided a non-encumbrance certificate which confirms that the sub-project road does not have any temporary or permanent structure in the whole stretch and road will be upgraded in the available RoW (annexure 3). The letter issued by the Project Manager, also refers the certificate (letter no. CE/RBK/HD/7165, dated 14.06.2019) issued by the Chief Engineer, PWD(R&B) department in which it has been mentioned that the existing RoW in the sub-project road is 5.55 meters (annexure 4).

2.4.9 Major Utilities Along the Existing Road

A detailed road inventory survey was carried out at 500 m intervals mainly the proposed alignment or change in c/w width whichever is earlier. Detailed information was collected and utilized for planning, design, and cost estimate.

An inventory of the project road has been carried out through dimensional measurement and visual inspection. Features like chainage, terrain and land-use, the height of fill or depth of cut, the width of pavement and shoulders, important road junctions and geometric deficiencies, utilities, etc., were recorded.

These surveys were carried out by visual observation supplemented with sample measurements using tape etc. The road inventory has been referenced to the existing km posts established along the roadside.

2.5 Proposed Activities (Improvement & Upgradation)

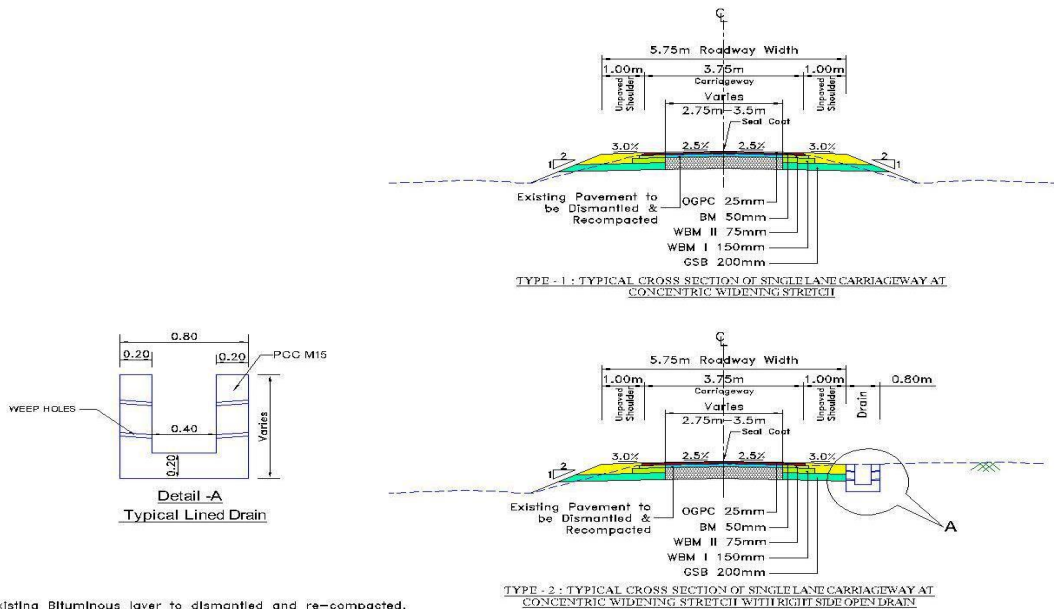
Table 5: Overview of the proposed road

Sl.No.	Description of item	Details	
1	Road length	Existing – 12.696 km.	Design – 12.688 km
2	Road Configuration	Existing:- 2.75 m to 3.0 m wide carriageway	Propose:- 3.75 m wide carriageway
3	Terrain	Plain	
4	Land use pattern	Mixed Pattern Open & Residential	
5	Existing Surface of carriageway	Flexible pavement BT surface	
7	Existing Formation Width	5.5 m	
8	Right of Way (ROW)	5.5 m	
9	Pavement Condition	Fair to Poor	
10	New Flexible Pavement thickness	OGPC-25 mm; BM -50 mm, WBM - 225 mm; GSB-200 mm	
11	Design CBR	5.0 % (Avg. CBR)	
12	Junctions	Minor - 5	
13	Traffic	T9 (15 ESAL to 20 EASL) – IRC SP 72 -2015	
14	Cross drainage structures	Existing CD Structure- 16 HP Culvert - 5 Nos. Slab Culvert - 7 Nos	Proposed Culvert- 9 HP Culvert - 5 Nos (Reconstruction)

Sl.No.	Description of item	Details	
		Bridge – 4 no	SC – 4 Nos (Reconstruction)
15	Settlement	Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam.	

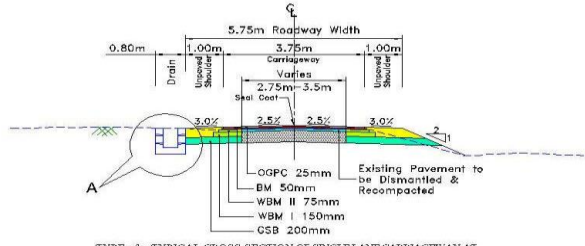
2.5.1 Carriageway/ Roadway Width

In general, the proposed cross-section comprises of 3.75 m wide carriageway with a 1.000 m wide granular hard shoulder on either side of the c/w. The camber on either side of the carriageway and hard shoulder is 2.5 % & on the shoulder it is 3.0 %. The proposed cross-sections are presented in TCS-1 & TCS - 2 having 3.75 m CW below.

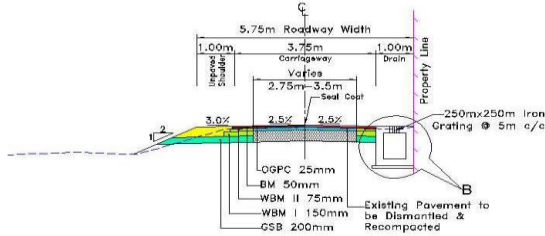
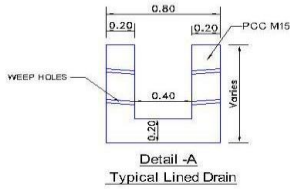


Note:

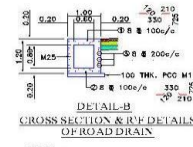
- Existing Bituminous layer to dismantled and re-compacted.
- Below Bituminous Macadam, layer thickness (WBM-maximum 225mm/GSB) shall be decided based on re-compacted level and FRL of the proposed road.



TYPE - 3: TYPICAL CROSS SECTION OF SINGLELANE CARRIAGEWAY AT CONCENTRIC WIDENING STRETCH WITH LEFT SIDE OPEN DRAIN

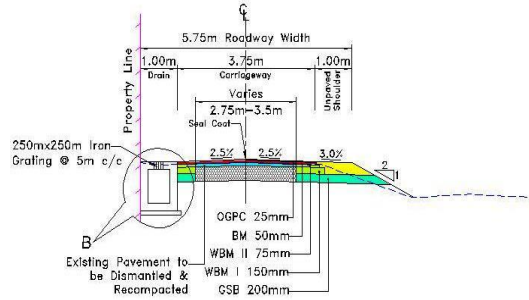


TYPE - 4: TYPICAL CROSS SECTION OF SINGLELANE CARRIAGEWAY AT CONCENTRIC WIDENING STRETCH WITH RIGHT SIDE COVER DRAIN

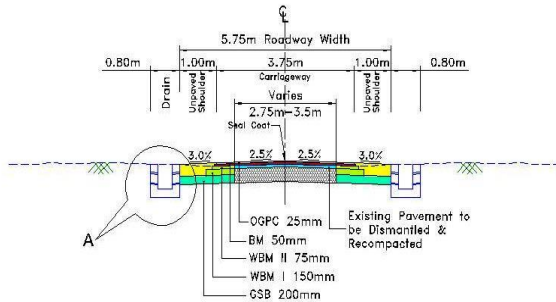
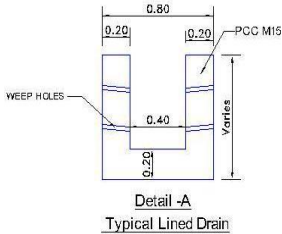


- NOTES :
1. ALL DIMENSIONS ARE IN MM. UNLESS OTHERWISE MENTIONED.
 2. GRADE OF CONCRETE :- STRUCTURE - M25 LEVELING COURSE(P.C.C.) - M15
 3. GRADE OF STEEL $F_y=500$ AS PER I.S.-1786.
 4. CLEAR COVER SHALL BE 40MM.

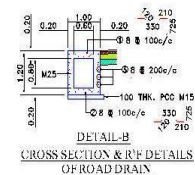
- Note:
1. Existing Bituminous layer to dismantled and re-compacted.
 2. Below Bituminous Macadam, layer thickness (WBM-maximum 225mm/GSB) shall be decided based on re-compacted level and FRL of the proposed road.



TYPE - 5: TYPICAL CROSS SECTION OF SINGLELANE CARRIAGEWAY AT CONCENTRIC WIDENING STRETCH WITH LEFT SIDE COVER DRAIN

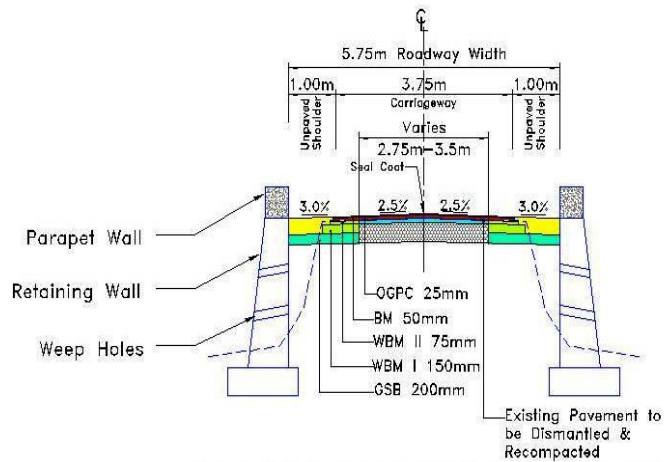


TYPE - 6: TYPICAL CROSS SECTION OF SINGLELANE CARRIAGEWAY AT CONCENTRIC WIDENING STRETCH WITH BOTH SIDE OPEN DRAIN



- NOTES :
1. ALL DIMENSIONS ARE IN MM. UNLESS OTHERWISE MENTIONED.
 2. GRADE OF CONCRETE :- STRUCTURE - M25 LEVELING COURSE(P.C.C.) - M15
 3. GRADE OF STEEL $F_y=500$ AS PER I.S.-1786.
 4. CLEAR COVER SHALL BE 40MM.

- Note:
1. Existing Bituminous layer to dismantled and re-compacted.
 2. Below Bituminous Macadam, layer thickness (WBM-maximum 225mm/GSB) shall be decided based on re-compacted level and FRL of the proposed road.



TYPE - 7 : TYPICAL CROSS SECTION OF SINGLE LANE CARRIAGEWAY AT CONCENTRIC WIDENING STRETCH WITH BOTH SIDE RETAINING WALL

Note:

1. Existing Bituminous layer to dismantled and re-compacted.
2. Below Bituminous Macadam, layer thickness (WBM-maximum 225mm/GSB) shall be decided based on re-compacted level and FRL of the proposed road.

Table 6: Detail of Typical Cross Section Schedule

From	To	Length	Type
0+000	0+200	200	Type 1
0+200	0+500	300	Type 3
0+500	0+720	220	Type 1
0+720	0+820	100	Type 7
0+820	0+890	70	Type 1
0+890	0+910	20	Type 7
0+910	1+300	390	Type 1
1+300	1+600	300	Type 2
1+600	2+800	1200	Type 1
2+800	3+000	200	Type 3
3+000	3+354	354	Type 1

From	To	Length	Type
3+354	3+468	114	Type 2
3+468	3+481	13	Type 6
3+481	3+570	89	Type 3
3+570	3+770	200	Type 2
3+770	3+869	99	Type 1
3+869	4+030	161	Type 2
4+030	5+600	1570	Type 1
5+600	5+742	142	Type 2
5+742	7+037	1295	Type 1
7+037	7+125	88	Type 5
7+125	7+218	93	Type 2
7+218	7+300	82	Type 1
7+300	7+400	100	Type 2
7+400	7+608	208	Type 1
7+608	7+916	308	Bridge under Construction
7+916	10+400	2484	Type 1
10+400	10+500	100	Type 4
10+500	10+600	100	Type 2
10+600	10+900	300	Type 1
10+900	11+000	100	Type 5
11+000	11+125	125	Type 2
11+125	12+688	1563	Type 1
Total		12688	

2.5.2 Horizontal and vertical alignment

Existing alignment is followed to widen and strengthen the existing road and it is found that mostly the required ruling design speed of 40 km/hour is maintained. The existing carriageway will be provided with the required grade after making the provision of a profile corrective course with proper cambers over the existing carriageway surface. Due to land constraints, most of the curve radius is less than 60, henceforth 0.6 m to 0.9 m extra widening provide at those locations as per IRC norms. Horizontal, Vertical Curve and details of extra widening are mentioned in Annexure IV of DPR.

2.5.3 Improvement of Sight Distance

Improvement of sight distance on the proposed alignment has been taken care of while designing the alignment. However, a necessary road sign has to be provided where speed is restricted wherever required.

2.5.4 Improvement of Cross Drainage Structures

There are 12 nos. of CD structure in the project road, out of which 2 nos. HP culverts, 7 nos Slab culverts, and 2 Bridge, and 1 ROB exist on the project stretch. Out of these 2 nos, HP culverts all are replaced by 1200 mm dia HP as existing all are choked due to siltation and in very poor condition. In addition to that, 6 nos of Slab Culverts also proposed to replace and reconstruct by Box culvert. The details are mentioned in Table 7.

Table 7: Details of proposed culverts

Sl No.	Proposed Structure			
	Chainage	Types	Span(m)	Proposal
1	0+397	Box	2.0x2.0	Replaced
2	0+488			Retained
3	0+846			Retained
4	1+635			Retained
5	1+822	Pipe	1 x 1.2	Replaced
6	2+744	Box	2.0x2.0	Replaced
7	3+478	Pipe	1 x 1.2	NC
8	3+569	Pipe	1 x 1.2	Replaced
9	3+771	Box	2x2	Replaced

Sl No.	Proposed Structure			
	Chainage	Types	Span(m)	Proposal
10	3+828	Pipe	1 x 1.2	Replaced
11	3+869	Box	2.0x2.0	Replaced
12	4+280			Retained
13	4+604			Retained
14	5+744	Box	2.0x2.0	Replaced
15	6+400			Retained
16	7+222	Pipe	1 x 1.2	NC
17	7600 to 8200			Not in scope
18	8+220	Pipe	1 x 1.2	NC
19	8+960	Pipe	1 x 1.2	NC
20	10+330	Pipe	1 x 1.2	NC
21	11+250	Pipe	1 x 1.2	NC
22	12+207	Box	2.0x2.0	Replaced

2.5.5 Protective Works

A new construction concept has been adopted for the entire stretch. From Km 7.916 to Km 8.205 (Length 289 m) and Km 11.800 to Km 11.840 (40 m) stretches require additional 329 m retaining wall to protect embankment from soil erosion. Av height of retaining wall is 4.0 m.

2.5.6 Pavement Design

After doing the pavement investigation and pavement condition survey, it has been studied thoroughly. After that pavement design has been done as per the following considerations:

- Rehabilitation on existing pavement
- Reconstruction of existing pavement

After Task 1 and Task 2, realignment, as well as provision of rigid pavements, have been ruled out. Hence, under Task 3 of this project road only following pavement design has been studied:

- Rehabilitation on existing pavement
- Reconstruction of existing pavement

The consultants have worked out the designs for all the above cases based on results of survey/investigations about traffic, axle load spectrum, pavement condition, and strength, subgrade/material properties, etc. The design life adopted in the analysis is 15 years for flexible pavement from the date of opening the road to traffic. Pavement design for various cases has been illustrated in the following paragraphs.

2.5.7 Rehabilitation of existing pavement

Strengthening design involves prudent engineering judgment and decision-making in analyzing and using the various investigations data for the purpose. It may be mentioned that deflection testing (generally use for strengthening design) is primarily related to traffic-associated fatigue cracking of a pavement. If the pavement is exhibiting deformation / without bitumen top surface / poor condition of the bituminous surface, it will be necessary to sample and test/observe component layers before deciding on an overlay/strengthening.

Design of flexible pavement for new construction has been done following "Tentative Guidelines for the Design of Flexible Pavement" (IRC: 37-2018).

The following Survey has been conducted and procedure followed for design and construction:

1. Conducted the Traffic Study and based on PCU, lane configuration finalized. In case of land constraint, lane configuration has been restricted Up to the availability of space between properties of both sides.
2. In case land availability allows providing required lane configuration to upgrade (widening), rehabilitation and reconstruction considered for these stretches. For the widening portion, mostly concentric widening is considered. After both edge trimming, prepare the original ground for construction of embankment, followed by sub-grade, GSB, WMM, DBM, and BC.
3. Raising of Existing Carriageway is not done where roadside establishment exists. On those stretches, reconstruction has been proposed. Where lane configuration is not

feasible for an upgrade, the carriageway has been restricted Up to the availability of space between properties of both sides.

4. The existing condition of the road is poor. Hence, the BBD test was not carried out. Existing bituminous layer to be dismantled and re-compaction to be done after dismantling bituminous layer. Re-compacted level shall be compared for design level and WBM/GSB (depending upon the level difference of FRL and level after re-compaction). Existing Base and Subbase layers are generally more than the required thickness than that of new pavement. Widening portion to be constructed from the subgrade as per the design.
5. Axle Load survey was conducted to find out VDF. Wherever Axle load survey not done standard VDF value considered based on terrain and traffic as per IRC:37-2018.

Soil samples were collected from the sub-grade level after excavating the existing pavement thickness at the selected locations along the carriage way edge. Soil Samples taken to the laboratory were tested for L.L., P.L, and Gradation. Remolded soil samples were thereafter made by compacting at the maximum dry density and OMC. The samples were then soaked for 4 days and then tested for CBR value. For each location, three such remolded samples were prepared and tested for soaked CBR, and the average value of CBR at each location was determined. The CBR value varies between **4.20 % & 5.90 %**. The average CBR is **5.00 %**. ML, MI, ML-MI, CL & CI classified soil are found in sub-grade from **Ch 0.000 Km to Ch 12.688 Km**. The summary of Test Results is presented below.

Design of flexible pavement for new construction has been done by following "Guidelines for the Design of Flexible Pavements for Low Volume of Rural Roads" (IRC SP 72: 2015). This is described as following:-

DESIGN OF FLEXIBLE PAVEMENT

As per IRC: SP:72-2015

Average Daily Traffic in Season

Animal drawn Carts = 2 MCV (Laden)	3
Cycles & Cycle Rickshaws / Hand Cart	0
2 Axles, LCVs & Mini Bus	134

Agricultural Tractor- Trailers + (Animal drawn Carts = 2 MCV (Laden))=	83
Cars & Jeeps	97
Motor Cycles	84
Total	401

Average Daily Traffic During the Season (T) = **401**

Design CBR (%) = **5.00**

AADT = $T + (1.2nTt)/365 = 401 + (1.2 \times 1 \times 401 \times 90)/365$ = 520

Here n = 1

t = 90 days

Here n = Multiplying Factor for Harvesting Season

t = No of days in one Harvesting Season

After opening of road to traffic, AADT = $520 \times (1.06)^2$

After opening of road to traffic, AADT = **584**

Assuming an initial growth rate of 6%

From the given traffic count data, the proportions of HCV and MCV out of the ADT of 584 work out as under:

Heavy Commercial Vehicles (HCV) = $134 \times 584/401 = 195$

Medium Heavy Commercial Vehicles (MCV) = $83 \times 584/401 = 121$

Projected Design Traffic (CVPD) = **316**

Traffic count data does not given the proportion of unladen and laden vehicles, it is assumed that these are equal in number.

Heavy Commercial Vehicles (HCV) (Laden) = 98

Heavy Commercial Vehicles (HCV) (Unladen) = 97

Medium Heavy Commercial Vehicles (MCV) (Laden) = 61

Medium Heavy Commercial Vehicles (MCV) (Unladen) = 60

Taking the VDF value from para 3.4.4 from IRC:SP: 72-2015,

The ESAL applications per day =

$$\begin{aligned}
 &= \text{HCV} \times 2.86 + \text{HCV} \times 0.31 + \text{MCV} \times 0.34 + \text{MCV} \times 0.02 \\
 &= 98 \times 2.86 + 97 \times 0.31 + 61 \times 0.34 + 60 \times 0.02 \\
 &= 332.29
 \end{aligned}$$

Cumulative ESAL applications over 10 years @ 6% growth rate

$$= 4811 \times 332.29 = 15,98,647.00$$

Traffic Categories	Cumulative ESAL Applications	
T01	10,000.00 -	30,000.00
T02	30,000.00 -	60,000.00
T03	60,000.00 -	1,00,000.00
T04	1,00,000.00 -	2,00,000.00
T05	2,00,000.00 -	3,00,000.00
T06	3,00,000.00 -	6,00,000.00
T07	6,00,000.00 -	10,00,000.00
T08	10,00,000.00	15,00,000.00
T09	15,00,000.00	20,00,000.00

Traffic category: T09 (Cumulative ESAL Application, Para No. 3.5, (1500000 to 2000000))

Design pavement thickness as per IRC-SP - 72 - 2015 = 475mm (As per Fig 4 in Page 22 of IRC SP 72:2015)

Hence Thickness Corresponding to CBR 5.0% (mm) to be adopted 475mm.

Thickness of BM – 50mm

Thickness of Base Course (WBM) – 225mm

Thickness of GSB – 200mm

Provide OGPC as wearing cours

2.5.8 Traffic Safety and Other Appurtenances

Following road furniture and miscellaneous items have been designed keeping safety aspects in mind.

I. Road Markings

Road Markings on the carriageway and the objects within and adjacent to the roadway are used as a means of guiding and controlling the traffic. They promote road safety and ensure the smooth flow of traffic in the required paths of travel.

The location and type of marking lines, material, and the colour is followed using IRC: 35-2015- “Code of Practice for Road Markings”.

The road markings were carefully planned on carriageways, intersections, and bridge locations.

II. Road Signs

Road signs were planned to supply information, to regulate traffic by imparting messages to the drivers. The type, locations, sizes were planned using IRC: 67-2012 “Code of Practice for Road Sign”. Details of Road Signage are given in table 8.

Table 8: details of Road signages

Sl no	Sign		Size	Nos
	Fig No	Description		
1	14.02	Give Way	900 Equilateral	7
2	14.23	Overtaking Prohibited	600 Equilateral	0
3	15.01	Left Hand Curve	600 Equilateral	9
4	15.02	Right Hand Curve	600 Equilateral	9
5	15.03	Right Hairpin Curve	600 Equilateral	0
6	15.04	Left Hairpin Curve	600 Equilateral	0
7	15.05	Right Reverse Bend	600 Equilateral	6
8	15.06	Left Reverse Bend	600 Equilateral	8

Sl no	Sign		Size	Nos
	Fig No	Description		
9	15.07	Series of Bends	600 Equilateral	0
10	15.09	Side Road Right	600 Equilateral	6
11	15.10	Side Road Left	600 Equilateral	6
12	15.18, 15.19, 15.20, 15.21	Intersection	600 Equilateral	7
13	15.23	Narrow Road Ahead	600 Equilateral	0
14	15.24	Road Widens	600 Equilateral	0
15	15.34	School Ahead	600 Equilateral	4
16	15.35	Build Up Area	600 Equilateral	14
17	15.72	Chevron(Normal)		0
18	15.76	Object Hazard(Left)	90 cm x 30 cm rectangular	32
19	15.77	Object Hazard(right)	90 cm x 30 cm rectangular	32
20	16.02	Directional Sign		7
21	16.04	Directional Sign	60 cm x 90 cm rectangular	0
22	16.06	Place Identification Sign	60 cm x 45 cm rectangular	6
23	14.37	Maximum Speed Limit	600 mm dia	48
24	15.30,15.31	Start & End of Dual Carriageway	600 Equilateral	0
25	17.07	Hospital Ahead	600 Equilateral	0
TOTAL				201

III. Delineators

The role of delineators is to provide visual assistance to the driver about the alignment of the road ahead, especially at night. Reflectors are used on the delineators for better night visibility. IRC: 79-1981 "Recommended Practice for Road Delineators" was followed to plan location details. Two types of road delineators were planned i.e. hazard markers and object markers. Hazard markers

are to define obstructions like guardrails, and abutments adjacent to the carriageway, for instance at culverts and bridges. Object markers are used to indicate hazards and obstructions within the vehicle flow path, at channeling islands close to intersections.

IV. Crash Barrier

Metal crash barriers are proposed/ provided for the safety of the traffic on the stretches on approaches of bridges. It is also proposed on the curves for the safety of traffic irrespective of embankment height as per NHAI Circular (NHAI/PH-II/NHDP/ADB/GM (NS)-I dated May 19, 2004).

V. Parapet Wall

Parapet walls are provided along the edge of the shoulders at the valley side throughout the project stretch excluding the settlement areas. These are provided to prevent the vehicles from toppling over.

3. Legal and Regulatory Framework

This section deals with the laws, regulations, and policies, of the Government of India, the State Government, and the World Bank, related to environmental and social issues. Only the laws, regulations, and policies relevant to the project are discussed here. This section needs to be updated as to when new laws, regulations, and policies are made and enforced or the existing ones are revised.

3.1 Operational Policies of World Bank

The safeguard policies, the triggers for each policy, as well as the status of their relevancy for the proposed project are presented in the table below:

Table 9: World Bank's Operational Policies

Operational Policy	Key Features	Applicability
Involuntary Resettlement (OP 4.12)	Physical relocation and land loss resulting in: (i) relocation or loss of shelter; (ii) loss of assets or access to assets; (iii) loss of income sources or means of livelihood, whether or not the affected people must move to another location.	Not Applicable The sub-project has no impact on any private asset
Indigenous Peoples (OP 4.10)	If there are indigenous peoples in the project area, and potential adverse impacts on indigenous peoples are anticipated, and indigenous peoples are among the intended beneficiaries.	Not Applicable The sub-project does not adversely impact any Schedule caste/tribe population
Physical Cultural Resources (OP 4.11)	The policy is triggered by projects which, prima facie, entail the risk of damaging cultural property (e.g. any project that includes large-scale excavations, movement of earth, surface environmental changes or demolition).	Not applicable No impact on any cultural resources

3.2 World Bank's Environment Health and Safety Guidelines

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP).

The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. Application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets, with an appropriate timetable for achieving them. The applicability of the EHS Guidelines should be tailored to the hazards and risks that may occur in the sub-project on the basis during pre-construction, construction, and operation phases.

3.3 National & Policies of U.T. of J&K

Table 10: National & Policies of U.T. of J&K

S.No.	Acts/Policies/Rules	Relevance to this project	Applicability in the sub-project
1	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 The old act is Land Acquisition Act, 1894 and it is replaced by the new Act RFCTLARR,2013	The Act has provisions to provide fair compensation to those whose land is taken away, brings transparency to the process of acquisition of land to set up factories or buildings, infrastructural projects, and assures rehabilitation of those affected.	Not Applicable This sub-project does not trigger any involuntary resettlement. Therefore, not applicable.
2	State Land Acquisition Act 1990 (1934 AD)	The State Land Acquisition Act 1990 (1934 AD) is in force in the state of Jammu and Kashmir. This Act provides the legal framework for land acquisition for public purposes in J&K. It enables the State Government to acquire private lands for a public purpose, and seeks to ensure that no person is deprived of land except under the Act.	Not Applicable This sub-project does not trigger any involuntary resettlement. Therefore, not applicable.

S.No.	Acts/Policies/Rules	Relevance to this project	Applicability in the sub-project
5	Jammu and Kashmir Common Lands (Regulation) Act, 1956	An Act to regulate the rights in common lands. Provide relief to the user of the lands, used for common purposes like roads, streets, lanes, pathways, water channels, drains, wells, tanks, or any other source of water supply to the villagers in general. Provision for the prohibition of encroachments over such common lands and public places and eviction thereof and in case of encroachments, to restore the rights of the users. Provision for assigning land for extension of "Village Abadi", if existing land is inadequate for the habitation of the villagers at any point of time.	May be applicable This sub-project does not trigger any involuntary resettlement. Therefore, not applicable.

3.4 Other Central and State acts which may be applicable in the Sub-project:

- Minimum Wages Act, 1948
- Contract Labor Act, 1970
- The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013
- The Bonded Labor System (Abolition) Act, 1976
- Child Labor (Prohibition and Regulation) Act 1996 along with Rules, 1988
- Children (Pledging of Labor) Act, 1933 (as amended in 2002)
- The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
- The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996
- Untouchability Offences Act, 1955
- The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989
- The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Rules, 1995
- Disaster Management Act 2005: specifies that while providing compensation and relief to victims of disasters there shall be no discrimination on the grounds of sex, caste, community, descent or religion.

- The Jammu and Kashmir Protection of Human Rights Act 1997
- The Jammu and Kashmir Natural Calamities Destroyed Areas Improvement Act, 1955:
- The Jammu and Kashmir Right to Information Act 2004
- Backward Classes Commission Act, 1997
- Persons with Disabilities Act, 1998
- J&K Reservation Act, 2004

4. Socio-Economic Profile of The Project Area

4.1 Socio- Economic data of Baramulla district²

Baramulla District is one of the largest Districts in the entire valley in terms of population as well as area. The district is spread over an area of 4243 Sq. Kms and population of the District according to Census 2011 is 10.08 lacs. The district is bounded by Kupwara and Bandipora in the North, Budgam and Poonch in the South, parts of Srinagar in the east and has line of control in the West .The District is administratively divided into 16 Tehsils and 26 CD Blocks.

Baramulla is no different from other parts of Kashmir Valley about food habits, dress patterns, customs, and traditions. Kashmiri and Urdu are the main languages of the people in the District, Pahari and Gojari is also spoken in Uri and areas near foot hills of Gulmarg.

Baramulla District has a severe cold in winter and pleasant weather in summer. Average annual rainfall in the District is usually registered upto 1125.6 mm. The soil in hilly areas is poor but in the plain areas, it is very fertile. About 81.90% of the population lives in the villages and 18.10% in urban areas. With an area of 4243SqKms, Baramulla is the fourth largest District of the UT accounting for 4.13% of the comparable area on this side of the control line. Administration Head Quarter of the District is located at Baramulla.

There are 518 census villages of which 509 are inhabited and 09 are uninhabited. All the villages have been grouped into community Development Blocks for purposes of implementation of the integrated rural development program. There are 26 Blocks and 16 Tehsils in the District.

Baramulla district has a population of 1008039 souls as per census 2011. The total Male population of the district is 534,733 and the female population is 473,306. The District has recorded population growth of 19.45 % during the decade 2001 to 2011 as compared to UT growth rate of +23.64%.

The sex ratio of the district is 885 females for 1000 males.

The main occupation of the working force includes Non-agriculture Workers (55.67%), Agriculture Workers (39.37%) and Other Household Industrial Workers (4.96%). About 81.90% of the population lives in villages and 18.10 % in urban areas.

² Source: Directorate of Economics & Statistics, UT J&K

Average literacy rate of Baramulla in 2011 were 64.63 compared to 47.68 of 2001. Male literacy rate is 75.53 % whereas female literacy rate is 52.38

4.2 Socio- Economic data Bandipora district

Bandipora is newly carved District from erstwhile Baramulla District. The district is surrounded by Himalayan Mountains having Kargil District on north, Kupwara in West, Baramulla in south and Ganderbal in east. The district is a hilly & backward district with moderate climate. District Headquarters Bandipora is well connected by road. Bandipora is about 47 KM by road to Srinagar, (Capital of Jammu & Kashmir).

The District has three diverse geographical, socio-cultural and economic zones. Thus, nature of hazards also varies.

1. Lake shore region is prone to floods,
2. The foothills are affected by landslides, flash floods, soil erosions and debris flow and,
3. High mountains experience snow avalanches and harsh winters. Earthquake, floods and fire are constant hazards in this socio-economically vulnerable region.

The total population of Bandipora district as per the census 2011 is 392,232 souls out of which 207,680 are males and 184,552 are females. With regards to Sex Ratio in Bandipora, it stood at 889 per 1000 male compared to 2001 census figure of 894.

The Climate of the district is Temperate cum Mediterranean type. In the higher reaches the temperature remains cold throughout the year. Average minimum and maximum temperature varies from -5°C to 32°C . The winter season starts from the middle of the November and severe winter conditions continues till the middle of February/March. The district receives an average annual precipitation of about 1200 mm in the form of rain and snow for about 60 days. Gurez and Bandipora receive heavy snowfall during winter season in comparison to other places.

The local economy mostly hinges on subsistence. The main source of livelihoods are fishing, agriculture, animal husbandry, daily wage labourers and handicraft artisans including carpet weavers. The main crops include Shaly (Rice) , Macca (Maize) Wheat and Barley. Horticulture (apple orchards, peaches, plums strawberries and dry fruits). Floriculture and sericulture are also undertaken mainly by economically well-off households. Mining and sand extraction is also growing as a source of employment.

4.3 Socio-Economic Profile of Sub-Project villages

The socio-economic profile of the village falling under the proposed sub-project is given below:

Village Lal Pora- Lal Pora is a large village located in Baramulla Tehsil of Baramula district, Jammu and Kashmir with total 364 families residing. The Lal Pora village has population of 2134 of which 1106 are males while 1028 are females as per Population Census 2011.

In Lal Pora village population of children with age 0-6 is 269 which makes up 12.61 % of total population of village. Average Sex Ratio of Lal Pora village is 929 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the Lal Pora as per census is 770, lower than Jammu and Kashmir average of 862.

Lal Pora village has higher literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of Lal Pora village was 69.12 % compared to 67.16 % of Jammu and Kashmir. In Lal Pora Male literacy stands at 79.14 % while female literacy rate was 58.62 %.

In Lal Pora village out of total population, 619 were engaged in work activities. 34.09 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 65.91 % were involved in Marginal activity providing livelihood for less than 6 months. Of 619 workers engaged in Main Work, 8 were cultivators (owner or co-owner) while 15 were Agricultural labourer.

Village Nawgam- Nawgam is a medium size village located in Baramulla Tehsil of Baramula district, Jammu and Kashmir with total 70 families residing. The Nawgam village has population of 425 of which 207 are males while 218 are females as per Population Census 2011.

In Nawgam village population of children with age 0-6 is 59 which makes up 13.88 % of total population of village. Average Sex Ratio of Nawgam village is 1053 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the Nawgam as per census is 1360, higher than Jammu and Kashmir average of 862.

Nawgam village has higher literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of Nawgam village was 71.58 % compared to 67.16 % of Jammu and Kashmir. In Nawgam Male literacy stands at 82.42 % while female literacy rate was 60.87 %.

In Nawgam village out of total population, 115 were engaged in work activities. 50.43 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 49.57 % were involved in Marginal activity providing livelihood for less than 6 months. Of 115 workers engaged in Main Work, 1 were cultivators (owner or co-owner) while 1 were Agricultural labourer.

Village Hamray- Hamray is a medium size village located in Pattan Tehsil of Baramula district, Jammu and Kashmir with total 259 families residing. The Hamray village has population of 1772 of which 901 are males while 871 are females as per Population Census 2011.

In Hamray village population of children with age 0-6 is 180 which makes up 10.16 % of total population of village. Average Sex Ratio of Hamray village is 967 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the Hamray as per census is 935, higher than Jammu and Kashmir average of 862.

Hamray village has lower literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of Hamray village was 66.90 % compared to 67.16 % of Jammu and Kashmir. In Hamray Male literacy stands at 76.98 % while female literacy rate was 56.51 %.

In Hamray village out of total population, 386 were engaged in work activities. 41.71 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 58.29 % were involved in Marginal activity providing livelihood for less than 6 months. Of 386 workers engaged in Main Work, 16 were cultivators (owner or co-owner) while 18 were Agricultural labourer.

Village Bulagam- Bulagam is a medium size village located in Sopore Tehsil of Baramula district, Jammu and Kashmir with total 300 families residing. The Bulagam village has population of 1800 of which 890 are males while 910 are females as per Population Census 2011.

In Bulagam village population of children with age 0-6 is 293 which makes up 16.28 % of total population of village. Average Sex Ratio of Bulagam village is 1022 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the Bulagam as per census is 1063, higher than Jammu and Kashmir average of 862.

Bulagam village has higher literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of Bulagam village was 69.67 % compared to 67.16 % of Jammu and Kashmir. In Bulagam Male literacy stands at 80.61 % while female literacy rate was 58.89 %.

In Bulagam village out of total population, 391 were engaged in work activities. 53.71 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 46.29 % were involved in Marginal activity providing livelihood for less than 6 months. Of 391 workers engaged in Main Work, 2 were cultivators (owner or co-owner) while 30 were Agricultural labourer.

Village Tramba Gund- Tramba Gund is a medium size village located in Sopore Tehsil of Baramula district, Jammu and Kashmir with total 118 families residing. The Tramba Gund village has population of 716 of which 339 are males while 377 are females as per Population Census 2011

In Tramba Gund village population of children with age 0-6 is 96 which makes up 13.41 % of total population of village. Average Sex Ratio of Tramba Gund village is 1112 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the Tramba Gund as per census is 1182, higher than Jammu and Kashmir average of 862.

Tramba Gund village has lower literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of Tramba Gund village was 55.16 % compared to 67.16 % of Jammu and Kashmir. In Tramba Gund Male literacy stands at 62.71 % while female literacy rate was 48.31 %.

In Tramba Gund village out of total population, 193 were engaged in work activities. 74.09 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 25.91 % were involved in Marginal activity providing livelihood for less than 6 months. Of 193 workers engaged in Main Work, 67 were cultivators (owner or co-owner) while 2 were Agricultural labourer.

Village Tanga Pora- Tanga Pora is a medium size village located in Sonawari Tehsil of Bandipora district, Jammu and Kashmir with total 92 families residing. The Tanga Pora village has population of 585 of which 275 are males while 310 are females as per Population Census 2011

In Tanga Pora village population of children with age 0-6 is 105 which makes up 17.95 % of total population of village. Average Sex Ratio of Tanga Pora village is 1127 which is higher than Jammu and Kashmir state average of 889. Child Sex Ratio for the Tanga Pora as per census is 1333, higher than Jammu and Kashmir average of 862.

Tanga Pora village has lower literacy rate compared to Jammu and Kashmir. In 2011, literacy rate of Tanga Pora village was 29.58 % compared to 67.16 % of Jammu and

Kashmir. In Tanga Pora Male literacy stands at 40.00 % while female literacy rate was 20.00 %.

In Tanga Pora village out of total population, 142 were engaged in work activities. 42.25 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 57.75 % were involved in Marginal activity providing livelihood for less than 6 months. Of 142 workers engaged in Main Work, 10 were cultivators (owner or co-owner) while 3 were Agricultural labourer.

5. Analysis of Alternatives

For this sub-project, the analysis of alternatives has been made, considering the “with and without project scenarios” which considered the potential social impacts, both positive and negative, of the sub-project.

5.1 ‘Without’ and ‘With’ Project Scenario’

5.1.1 ‘Without’ Project Scenario

It is a single-lane village road falling under plain terrain, having the low intensity of commercial vehicles. The Existing BT surface is in fair to poor condition. The average existing carriageway width is 2.5 m which is also lesser than a single lane road (3 m). During heavy rain in the year 2014, the alignment is severely damaged and connectivity with villages cut off for few weeks. Project Road passing through water logged area at several locations and protection work also require at different stretches to prevent soil erosion.

Without the proposed sub-project, People will have to face the problem of movement throughout year like accessing schools, health centres, district headquarters, ferrying agricultural produce etc.

5.1.2 ‘With’ Project Scenario

The affected areas will benefit from the restored access to markets thereby including the economic growth in these areas and timely access to health and education services. Restoration of roads will also serve as supply/rescue lines in the event of a disaster. The component will finance the reconstruction of damaged roads, bridges, and associated drainage and slope stabilization work, retaining walls, breast walls, and other structures to increase resilience. The proposed sub-project will provide all weather road to the locals which will facilitate their movement to access basic services such as schools, health services etc.

The sub-project will not require any private land acquisition and will not impact any other private asset. This has been confirmed through discussion with engineers from PIU and PMU, JTFRP (Kashmir division) and site visits done by technical team of DPR consultants. Further, Project Manager (Transport, Kashmir division), JK, ERA, vide letter no ERA/PMT/20/1126 dated 07.09.2020 has issued an encumbrance free certificate which confirms that upgradation and strengthening of the road for a length of 12.688 kms under JTFRP shall be restricted to the existing and available RoW which is 5.50m (annexure 3).

6. Stakeholder's Consultation

Stakeholder's Consultation is concerned with involving, informing, and consulting the public in planning, management implementation, and other decision-making activities. It tries to ensure that due consideration is given to public values, concerns, and preferences when decisions are made. It encompasses the public actively sharing in the decisions that government and other agencies make in their search for solutions to issues of public interest.

One of the key aims of the stakeholder engagement exercise is to ensure that all relevant stakeholders are provided with the opportunity to express their concerns and opinions, which are incorporated as early as possible in the project development: at planning, implementation, and operation phase and in the effect minimize the potential unexpected opposition of the proposed project and potential adverse effects to the environment. It is also very beneficial in incorporating the views of the public into the design process for the adoption of the best workable models and systems.

6.1 Identification of Stakeholder

Stakeholder identification is the process of identifying stakeholders considering the legitimate representatives or the project-affected groups and whose views should take precedence in stakeholder consultations. Project related information has been shared with all the concerned stakeholders on 25.11.2018 (annexure 9). This was the first step to identify stakeholders who will be involved in the consultative processes. Since the sub-project does not envisage acquisition of assets such as land and structures and there is no adverse impact on the livelihood either. Therefore, only people residing along the sub-project road are the main stakeholders along with PIU and PMU.

6.2 Objective of Stakeholder's Consultation

The main objective of this exercise is to inform stakeholders about the project and its likely effects, which in turn would incorporate their inputs, views, and concerns, and thus enable their views to be taken into account during the decision-making. The specific objectives of the consultations are geared towards:

- Informing the stakeholders about the project and its potential impacts.
- Obtaining local and traditional knowledge that may be useful in decision making.
- Facilitating consideration of alternatives, mitigation measures, and trade-offs (if any).
- Ensuring that important impacts are not overlooked and benefits are maximized

- Reducing chances of conflict through early identification of contentious issues
- Providing an opportunity for stakeholders to influence the Project design and operational plan in a positive manner.
- Improving transparency and accountability of decision making.
- Increasing public confidence in the SIA process.
- To gather baseline data for assessment of impacts (both direct and indirect) on the communities of the project area;
- To suggest appropriate mitigation measures to effectively manage potential adverse impacts;
- To do the socio-economic profiling of the project;
- To involve Gram Panchayat and its member's in the SIA study and project activities.
- To involve the stakeholders especially the people of the project impact area in the project activities.

6.3 Approach for Consultation

A very sensitive and pro people approach was adopted to engage locals in the sub-project activities. Project design and revenue record along with other project related information were shared with them in order to instil faith and confidence among them about the proposed project and its activities.

Following steps were taken to engage stakeholders.

1. Site visits and informal meetings with the local to know their views and perceptions about the sub-project.
2. Reconnaissance survey and transect walks.
3. Sharing of project design and revenue record with the locals.
4. Understanding their needs and requirement.
5. Collection of Baseline information.

6.4 Details of Public Consultation in the sub-project road

The public consultation was conducted by following the World Bank's ESMF prepared for JTFRP. The purpose and objective of this consultation are the involvement of residents/ stakeholders and to make them aware of the proposed activity of the subproject

Public consultations had been organised in the nearby villages to disseminate the project concept and plan among the stakeholder. Consultations were conducted successfully with public consultations had been organised in the nearby villages to disseminate the project

concept and plan among the stakeholder. Consultations were conducted successfully with the people of the Hamary Project area on 15.09.2019 (annexure 9).

Major outcome during consultation was that people are aware that no private land or structure is being acquired for the sub-project.

6.5 Information Shared

The following information was shared with the people:

- About project and its source of assistance, its implementation/execution, etc.
- Information on perceived benefits from the proposed sub-project including travel time, fuel costs, noise, and air pollution.
- Information of perceived losses from the proposed sub-project during the execution stage in terms of inconvenience to the public, air, and noise pollution, etc.
- Occurrence of disaster like floods, cloud burst in past.
- Construction activity whether causing any type of health hazard or not? And mitigation measures.
- Discussion among the public for sharing of information related to project, environment policy of World Bank direct and indirect impacts of improvement/ construction work on the environment.
- Any loss of land/structure/ business or other community property due to construction activity?
- Safeguarding of religious/ cultural places like Mosques along project road during the construction phase?
- Any impact on trees and measures to be taken for saving scheduled trees in close vicinity of the proposed road.
- Possible types of problems faced by the locals in their daily activities due to construction work.
- Livelihood generation by involving local labour with the project during the construction stage of the project.

6.6 Feedback received

During the consultation process about the proposed sub-project, people have expressed keen interest in the proposed sub-project. The local people are expecting a good road to be developed and are aware of the upcoming work. People, in general, were very enthusiastic

about the benefits of the sub-project in terms of reduction in travel time and fuel cost. There will be an improvement in the air quality and a reduction in noise levels when the sub-project is completed. The major problems faced by people are related to the dilapidated condition of the existing road. In the time of emergency, like accidents, fast commutation is very difficult and sometimes impossible. People are ready to extend all types of support during the execution of the sub-project as their major difficulties will overcome after completion of the sub-project. The sub-project during the construction stage will generate employment opportunities for local people.

7. Analysis of Social Impacts

7.1 Impact on Land

The total length of the sub-project road for reconstruction is 12.688 KMs. The average width of the existing carriageway varies from 2.75 m to 3.00 m with an average shoulder width of 1.00 m resulting in the average formation width varies from 4.75 m to 5.00 m. The proposal is to develop the existing road to the intermediate level i.e., 5.5 meter within the available RoW.

The proposed sub-project will be implemented in the available RoW which is encumbrance free and devoid of any private and government structure or any CPR. Project Manager, (Transport, Kashmir division), ERA, JTFRP vide letter no ERA/PMT/20/1126 dated 07.09.2020 has confirmed the same (annexure 3). The letter issued by the Project Manager, also refers the certificate (letter no. CE/RBK/HD/7165, dated 14.06.2019) issued by the Chief Engineer, PWD(R&B) department in which it has been mentioned that the existing RoW in the sub-project road is 5.50 meters (annexure 4).

The revenue record of the proposed sub-project could not be obtained from the concern department by JK ERA. Since the revenue record of the proposed sub-project was not available, therefore PMU, JTFRP published a notice in the two local newspapers namely “The Daily Tameel Irshad” and “Kashmir Images” on 15.09.2021 (annexure 5) informing general people and those who are likely to be benefitted/affected in particular, about the upgradation of this road sub-project within the existing right of way under World Bank funding. It also called for any objection from the local people regarding use of RoW, along with supporting documentary evidence within 07 days of publication of the notice in the newspaper. The office of Director safeguards did not receive any objection or claim from anyone even after the lapse of one month of the publication of notice in two local newspapers. Thereafter, Director Safeguards issued an official letter vide no. ERA/DSG/PS/94-99 dated 25.10.2021 regarding encumbrance free RoW detailing therein the process followed to reconfirm the ROW ownership status (annexure 6).

Therefore, on the basis of certificate issued by Project Manager (Transport, Division Kashmir), site visits, approved DPR and notice published in the newspaper it can be said that the sub-project does not have any adverse impact on the assets such as structures, land or on livelihood of anyone.

However, during execution, if there will be any unanticipated impact in terms of land requirement or acquisition of any asset, same shall be brought into the notice of the World

Bank and it will be addressed as per the applicable provisions given in the ESMF of the Project, applicable WB policies and that of U.T of J&K.

7.2 Impact on Structures

The proposed alignment is devoid of any structure i.e., residential, commercial, and religious or any CPR. Same has been verified and confirmed by PIU as well as PMU. Project Manager (Transport, Kashmir division) JK, ERA has issued an encumbrance-free certificate which confirms that the whole stretch does not have any temporary or permanent structure. (annexure 3). Strip plan of the road annexed as annexure 7 also confirms that there is no structure inside the alignment of the proposed road.

7.3 Impacts on Livelihood

There is no commercial structure either temporary or permanent in the proposed alignment of the road. Further, there is no squatter on the road earning livelihood by using the available RoW and none has encroached upon the road. Therefore, there will be no impact on livelihood in the project corridor due to this project.

8. Mitigation Measures

8.1 Social Management Plan

The Social Impact Assessment study does not envisage any significant adverse impact of the sub-project i.e., there is no involuntary displacement and land acquisition. Further, there is no temporary or permanent impact of any kind on the livelihood of people. Up-gradation and reconstruction of the road will be executed in the existing RoW. Technical department from PMU & PIU have made required modifications in design at initial stages to avoid negative impact as a part of mitigation measures.

The Social Management Plan suggests the mitigation measures needs to be adopted during execution to deal with unanticipated impact of the sub-project.

8.2 Objectives

The main objective of the Social Management Plan is to mitigate the various adverse social impacts which may arise during the pre-construction, construction, and post-construction of the sub-project. The objective of SMP in preconstruction, construction & post-construction stages are as follows:

Pre-construction Stage:

To discuss the design and technical proposal with the stakeholders to know their suggestions and inputs. To inform them about the project, its funding, land requirements, and policies and guidelines of funding agencies and applicable to the project.

Construction Stage:

To ensure that the provision of the SMP (Social Management Plan) is strictly followed and implemented by strengthening implementation arrangement.

To address the construction stage social impacts arising due to various project activities en route the corridor and particularly at habitations through specific measures that need to be applied across and certain specific measures that shall be determined on a case-by-case basis.

Post-construction Stage:

To ensure that all the issues that arose during the construction stage shall be addressed properly. In case land and other assets utilized by the EA or contractor shall be restored to the satisfaction of communities and owners of that assets.

8.3 Scope

The Social Management Plan (SMP) in the sub-project, consists of the set of mitigation, monitoring and institutional measures to be taken during the pre-construction, construction, and operation stages of the project to eliminate adverse social impacts, to compensate them, offset them, or to reduce them to acceptable levels following the mitigation hierarchy. The plan also includes the actions needed for the implementation of these measures.

The major components of the Social Management Plan are:

- Mitigation of potentially adverse impacts;
- Integration of SMP with Project in construction and operation phases;
- Institutional Capacity Building and Training;
- Monitoring during project implementation and operations;

8.4 Context for the SMP

This Social Management Plan for Hamary-Sultanpora-Sultanpora-Nowgam sub-project road is based on Social Impact Assessment study during which site visits were carried out in the project corridor. Consultations and meetings were conducted with the people and project design was discussed and evaluated on the ground.

The proposed sub-project will be implemented in the available RoW which is encumbrance free and devoid of any private and government structure or any CPR. Project Manager, (Transport, Kashmir division), JK, ERA vide letter no ERA/PMT/20/1126 dated 07.09.2020 has confirmed the same (annexure 3). The letter issued by the Project Manager, also refers the certificate (letter no. CE/RBK/HD/7165, dated 14.06.2019) issued by the Chief Engineer, PWD(R&B) department in which it has been mentioned that the existing RoW in the sub-project road is 5.55 meters (annexure 4).

8.5 Methodology for SMP Preparation

The comprehensive social management approach for the project involves following key steps and processes.

- Screening of social impacts during the SIA study
- Public consultation with the stakeholders.
- Discussion of Technical Proposal with the stakeholders.

- Transect walk and Identification of issues that can crop up during the construction stage.
- Development of measures aimed at avoiding, mitigating, and offsetting, or reducing impacts to levels that are socially accepted during implementation and operation of the project road.

8.6 Probable social issues that may arise during the construction stage

- Loss of land due to land-slides resulting from hill cutting activities.
- Cracks in structures or damage due to construction works e.g., hill cutting activities
- Temporary – short duration or prolonged disruption to services such as water supply, power supply etc.
- Temporary Disruption to traffic movement leading to time delays.
- Possibility of gender-based violence arising from influx of migrant labour for construction works.
- Labour influx issues may arise if contractor will employ the manpower from outside
- Labour issues like unequal wages to men and women, discrimination in employment opportunities, Child labour.
- Inconvenience and Nuisance to Public due to accumulation of excavated earth
- Stagnation of water leading to mosquito breeding and public health problems.
- Spread of diseases at construction and camp sites due to influx of labour like HIV AIDs, COVID 19 etc.

8.7 Social Management Plan

Based on the findings and issues identified during SIA study, Social Management Plan has been prepared for the sub-project. The mitigation measures for the potential impacts are presented in form of a matrix according to the sequential flow of activities in the project life cycle. These measures would be further updated by Contractor during the implementation of the SMP. The Social Management Plan will be a part of bid document.

Table 101: Social impacts & Mitigatory Measures

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
Planning/Pre-construction Phase					
1	Pre-	• Sharing of design with	• Consultation with local	Contractor	PIU

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
	construction phase	<p>the community.</p> <ul style="list-style-type: none"> • Utilization of private land temporarily if required. • Provision of alternative access to the community for commuting wherever required. • Restoration and relocation of Common Property Resources if any. 	<p>community and stakeholder engagement.</p> <ul style="list-style-type: none"> • Written consent from the community or owner of the land required for stocking construction material temporarily. • Involving locals wherever any issue arises. 		
Construction Phase					
2	Influx of labor	<ul style="list-style-type: none"> • Construction Camp Locations Selection, Design, and Lay-out. • Conflict with the community due to social and cultural differences with the host community. • The potential impact of spreading infectious diseases from labor to the local or vice versa. • Possibility of Sexual abuse and assault in the labor camps or otherwise. • Drug abuse, gambling, etc. 	<ul style="list-style-type: none"> • Minimize labor influx as much as possible by engaging the local labour force. • Ensure labor camps for the labor (Away from religious places and localities to the extent possible). • Awareness of the health and sanitation for the labor. • Ensure the least contact between the host community and the labor. • Awareness of sexual assault & drug abuse. 	Contractor	PIU/ PMU Monthly Monitoring
		<ul style="list-style-type: none"> • Facilities for the Labour in camp and on the worksite 	<ul style="list-style-type: none"> • Providing accommodation facilities to the migrant laborers with proper ventilations. • Provision for safe drinking water and appropriate cooking arrangement at labor camps; • Provision of Separate toilet and bathing facilities for men and women • Provision of medical facility which includes first aid kit at the camp site and also ambulance facility to take patients to the hospital in case of emergency. • Proper drainage facility at the camp site along with water sewerage treatment facilities. No waste water should be discharge to any surrounding area without 	Contractor	PIU/ PMU Monthly Monitoring

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
			<p>required permission and proper treatment.</p> <ul style="list-style-type: none"> • Provision of prayer rooms as per the religious beliefs of the workers. • Safe storage facilities for the gas cylinder, petroleum, and other chemicals, used by laborers. • Proper solid waste collection and disposal system at the camp site. • The camp should have proper security arrangements, like a Security fence. • Preparing a code of conduct for the migrant workers. • Conducting awareness programme about sexually transmitted diseases among the migrant workers, laborers and for the community around project site; • Awareness program on COVID-19. • Provision of hand sanitizer, masks in the labor camps. • Provision a separate accommodation for COVID-19 infected labors or persons engaged by the contractor. • Provision of crèche on site for children. • Training programs for construction workers in basic sanitation and health care issues (e.g., how to avoid malaria and transmission of sexually transmitted infections (STI) HIV/AIDS. • Labour Registration. • Awareness program for labor rights • No employment of child labor. 		
		<ul style="list-style-type: none"> • Registration of Complaints received from labor. 	<ul style="list-style-type: none"> • Arrangement to register and redress the grievance of workers. • Grievance Redressal System 	Contractor	PIU/ PMU Monthly Monitoring

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
			for the project to address such issues including sexual harassment at the workplace		
		<ul style="list-style-type: none"> • Equality of opportunity to work. • Equal Pay for equal work • Preference to the Women Laborers 	<ul style="list-style-type: none"> • To be ensured throughout the project cycle. • Maintenance of payment registers by the contractor. 	Contractor,	PIU/ PMU Monthly Monitoring
3	Community Health and Safety	<ul style="list-style-type: none"> • Injury & sickness due to construction work and movement of heavy vehicles, contamination, or other natural or human-made hazards. 	<ul style="list-style-type: none"> • Provision of access to the community, shops, religious places during the construction phase. • Better marking and signage. • Provision of alternative transportation routes for vehicles and ambulances wherever required. • Undertaking regular surveillance at the site to check on Hygiene conditions for disease control. • Treating mass awareness on HIV and STDs and COVID-19. • Ensure the least contact between the labor and the local population. • Sharing grievance redressal system with the community and displaying contact numbers at the site to register any grievances due to the project. • contamination of water bodies due to stocking of construction material etc. • Safeguarding pedestrians' safety including women, children. • During construction of side, drains provide temporary/safe access to shops, kids, hospital/clinic, religious places, etc. • Community Consultation 	Contractor	PIU/ PMU Monthly Monitoring
4	Occupational health and safety	<ul style="list-style-type: none"> • Injury and sickness of labor 	<ul style="list-style-type: none"> • Provide training on health and safety to all the workers. • Provide PPE to workers as per work requirements. • Regular checking of body temperature and other symptoms among the 	Contractor	PIU/ PMU Monthly Monitoring

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
			laborers for COVID-19 and maintaining a register. <ul style="list-style-type: none"> • Awareness program on COVID-19. • Provision of hand sanitizer, masks in the labor camps and on the sites. • Displaying of COVID-19 help line numbers on-site as well as in labor camps. • Provide separate toilets for male and female labor at the construction site • Provide safe drinking water at the construction site. • Providing a separate resting area at the site for breaks during the work period • Provide adequate lighting in the construction area and along the roads. • Conduct an initial health screening of the laborers working at the construction site, especially those who are coming from outside the project area. • Provide first aid facility at the construction site • Provide HIV awareness programming, including STI (Sexually Transmitted Infections) and HIV information, education, and communication for all workers on regular basis. 		
5	Gender-Based Violence	<ul style="list-style-type: none"> • Sexual Exploitation and Abuse (SEA) • Workplace Sexual Harassment • Human Trafficking • Non-SEA 	<ul style="list-style-type: none"> • Awareness program for the Contractors, Local Communities, and laborers on national laws. • Introducing a worker's code of conduct. • Displaying of various legal provisions on-site, in labor camps, and at prominent locations in the project area. • Ensure that complaints of GBV are registered and confidentially maintain in the register. • Strict code of conduct for workers with no tolerance for physical or verbal abuse of women or children. 	Contractor	PIU/ PMU Monthly Monitoring

Sl.No.	Project Phase/Activity	Issues/ Potential impacts	Proposed Mitigation Measures	Responsibility	Monitoring Agency/ Frequency
			<ul style="list-style-type: none"> • Ensure that complaints of GBV are registered and confidentially maintained in a register 		
Post Construction Phase					
6	Rehabilitation of site used for camp, storage etc.	<ul style="list-style-type: none"> • Handing over temporarily used private/ community land to the landholders/ community by the contractor without restoration work and payment of dues/ lease amount. • Non-removal of debris and other construction material from the site. 	<ul style="list-style-type: none"> • Consultation with the private party or Community and restoration of their land. • Removing of non-utilized construction material from the site. • Payment of lease amount/rent, if any due, to the private party or community for utilization of their resources. 	Contractor	PIU/PMU Within one Month

8.8 Gender Action Plan

8.8.1 Status of Women in J&K

Women constitute around 47% of the total population of the State. The development of women, no doubt, has been a part of the development planning process right from the inception of Five-Year Plans but the shift in approach from welfare to development toward women took place in a focused manner in the 6th and 7th Five Year Plans. The 8th Five Year Plan promised to ensure that benefits of development do not by-pass women. The 9th Five Year Plan changed the strategy for women from development to empowerment and emphasis on preparation of a separate Women Component Plan (WCP) by identifying specific Schemes/Projects having a direct bearing on the welfare and development of Women. The 10th Five Year Plan further strengthened the implementation of the Women Component Plan (WCP).

Moreover, the Women and Child Development Department in the Ministry of Social Justice and Empowerment has also enjoined upon the states to monitor closely the flow of benefits of various schemes for the empowerment of women on regular basis. These initiatives have helped in improving the status of women in various spheres to a great extent, but the imbalance still exists which needs to be addressed over the years. The 11th Plan had taken numerous steps forward. However, the targets set out could be only partially achieved. In the 12th plan, the Government's priority would be to consolidate the existing initiatives and interventions relating to women, build upon the achievements and also move beyond to

respond to new challenges. The female population of J&K State slashed down from 47.15% of the total population in 2001 to 46.88% in 2011. As per details from Census 2011, Jammu and Kashmir have a population of 1.25 Crore souls over the figure of 1.01 Crore in the 2001 census. The total population of Jammu and Kashmir as per the 2011 census is 12,548,926 of which male and female are 6,665,561 and 5,883,365 respectively indicating a reduced sex ratio of 883. The corresponding figures of male and female as per Census 2001 were 5,360,926 and 4,782,774 respectively indicating a sex ratio of 892. Sex ratio (females per thousand of males) is an important indicator of the social conditions particularly for women's status in any society.

The low sex ratio shows indulgence of artificial interventions, distorting the biological trend and natural balance in terms of the number of females per thousand males. An important concern in the present status of Jammu and Kashmir's demographic transition relates to the adverse sex ratio. The sex-ratio as per census 2011 was 883 which is a matter of great concern and needs to be addressed on priority. Education of the women is very effective tool for women's empowerment not only from the point of view of literacy, but it has inter-linkage with other social parameters viz. population growth, health care, education of children, etc. It enables rural women to acquire new knowledge and technology, required for improving and developing their tasks in all fields, besides availing new opportunities and combating emerging challenges of a dynamic society.

Female education is essential for higher standards of health and improved "maternal competence" which leads to lower infant mortality. It also raises women's economic productivity. Despite its linkage to so many positive outcomes and the progress made over the past 50 years, female literacy remains low in J&K State as compared to men. Jammu and Kashmir's literacy rate has increased by 13% in the last decade i.e., from 55% in the 2001 Census to 68% in the 2011 Census. While female literacy has increased from 42.22% in the 2001 Census to 58.01% in 2011. Gender differential still exists both in rural and urban areas but it is comparatively higher in rural areas. This can be attributed to some factors viz., lack of access to schools, parents feeling insecure about sending girl children to schools, their engagement in agricultural and other domestic activities, etc. Though still being at a disadvantageous position, the womenfolk are breaking the barriers/shackles to get an equal share in basic human rights. With a higher growth rate than male literacy, the goal is expected to be achieved in near future.

8.8.2 Legal Provision Related to Women in J&K

- J&K Protection of Women from Domestic Violence Act, 2010

- Jammu and Kashmir Juvenile Justice (Care and Protection of Children) Act, 2013
- State Commission for Women Act, 1999

8.8.3 Strategy

Suggestive Actions to be taken in the sub-project

- Ensure participation of vulnerable groups in the project activities.
- Ensuring facilities in construction camps.
- Carrying out other responsibilities towards vulnerable groups.

Suggestions for increasing the Women's Participation in the sub-project

- Allow women to take part in the consultation process. Ensure that the women are consulted and invited to participate in group-based activities, to gain access and control over the resources.
- Encourage women to evaluate the project outputs from their point of view and their useful suggestions should be noted for taking necessary actions for further modifications in the project creating better and congenial situation for increasing participation from women.
- Devise ways to make other vulnerable to participate in the project activities.

Involvement during Construction

Wherever possible, women's involvement in construction activities should be encouraged in order to help them have access to benefits of project activities.

Ensuring Facilities in Construction Camps

Foreseeing the involvement of women, both direct and indirect in the construction activities, PMU, PIU & PMC shall ensure certain measures that are required to be taken by the construction contractor towards welfare and well-being of women and children during the construction phase such as:

- **Temporary Housing:** During the construction, the families of laborers/workers should be provided with residential accommodation suitable to nuclear families.
- **Health Centre:** Health problems of the workers should be taken care of by providing basic health care facilities through health centres temporarily set up for the construction camp.
- **Day Crèche Facilities:** It is expected that among the women workers there will be mothers with infants and small children. Provision of a day crèche may solve the

problems of such women, who can leave behind their children in such a crèche and work for the day in the construction activities. If the construction work involves women in its day-night schedules, the provision of such a crèche should be made available on a 24-hour basis.

- **Proper Scheduling of Construction Works:** Owing to the demand for fast construction work, it is expected that a 24 hours-long work-schedule would be in operation. Engaging women labour during night services should be avoided by the project or can be permitted only after getting written request from the women labour. In this case crèche facilities in the construction camps must be extended to them in the night
- **Control on Child Labor:** Minors, i.e., persons below the age of 14 years, should be restricted from getting involved in construction activities. It will be the responsibility of the Social and Environmental experts of PMU, JTFRP to ensure that no child laborers is engaged in the activities. PMU& PIU shall keep strong vigilance to ensure the cessation of such exploitation.

8.8.4 Avoiding Gender based violence

The contractor will prepare and implement robust measures to address the risk of gender-based violence that include:

- Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women;
- informing workers about national laws that make sexual harassment and gender-based violence a punishable offense which is prosecuted;
- introducing a Worker Code of Conduct as part of the employment contract and including sanctions for non-compliance (e.g., termination), and (iv) contractors adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.

8.9 Labor influx and Labor Management

Since the construction activities are mostly labor intensive by nature, therefore, it is also envisaged that both local and migrant labor shall be employed by the project. These migrant laborers will be accommodated in a temporary campsite within the project area.

8.9.1 Objectives

The influx of migrant labor will have both negative and positive impacts on the nearby community and local environment. The labor will be accommodated in a temporary campsite within the project area which can have a significant interface with the host community. The influx of migrant workers would lead to a transient increase of population near the project area for a limited time. This would put pressure on the local resources such as roads, fuel for cooking, water, etc. Hence, a plan has been designed to demonstrate the:

- Potential impacts associated with the influx on the host population and receiving environment are minimized;
- Provision of safe and healthy working conditions, and a comfortable environment for migrant labor; and
- To ensure compliance with the national labor laws, including guidance provided on the latest COVID 19 epidemic in the country.

8.9.2 General Requirements

All migrant workers are envisaged to be accommodated in a proper temporary campsite within the project area. If migrant workers are accompanied by their families, provisions should be made accordingly. As per the National Acts, the inclusion of requirements for labor camp to be established by contractors during the construction phase of the project. Contractor(s) shall ensure implementation of the following measures to minimise the potential negative impacts of worker accommodation and workers on local communities:

- **Cleanliness and Sanitization:** Pest extermination, vector control, and disinfection are to be carried out throughout the living facilities in compliance with local requirements and/or good practice. In light of the COVID-19 outbreak and increased risks to community health and safety and occupational health and safety, the contractor needs to put in place a COVID-19 mitigation measures.
- **Complaints and incident reporting:** A formal Complaints Procedure will be implemented to ensure the timely and transparent response to complaints as received from labor.
- **Labor education:** The workforce will be sensitized to local social and cultural practices through the provision of an induction course for all employees that stipulates expected behaviour;

- **Labor behaviour in the campsite provided:** A Code of Behaviour governing appropriate behaviour in the accommodation facilities to be kept in place and to be strictly enforced. The contractor shall ensure implementation of the “rules of engagement” between laborers living in the campsite and community and shall be implemented by construction contractors for all engaged laborers.
- **Labor Compensation and Accommodation:** JTFRP shall ensure that laborers are provided with benefits such as leave, weekly rest day, etc. Accommodation to be provided for the construction labor which covers facilities (including catering facilities, dining areas, washing and laundry facilities, etc.) and supporting utilities.

8.9.3 Hiring & Recruitment Procedures

- The manpower wherever possible shall be locally recruited by the contractor. The following general measures shall be considered for the workforce during their employment tenure:
- The implementing agency in consultation with the PMU will include a code of conduct relating to the accommodation to be signed with the contract document of contractors.
- The contractor shall not employ any person below the age of 18 years nor will have any forced labor; The construction laborers will be provided with documented information regarding their rights under national labor and employment law such as but not limited to Factories Act, Minimum Wages Act, 1948 Trade Unions Act, and Workmen’s Compensation Act; 1923
- The first priority for employment of labor should be given those impacted by the project such as landowners who have lost land / donated land;
- No discrimination shall be done by the construction contractor for recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, termination of employment or retirement, and disciplinary practices;
- The contractor to ensure that work hours are set at eight hours a day, 48 hours a week, with a weekly rest day for all engaged labor;
- Every labor is entitled to a maximum of only two hours a day as Overtime (OT) work. OT pay is twice the hourly remuneration;

- The project will ensure that equal wages for male and female workers for work of equal nature or value is maintained;
- A grievance redressal mechanism for workers to be put in place by the contractor to raise workplace concerns. The workers to be informed about the grievance mechanism at the time of recruitment; and
- The Contractor to ensure that they develop and implement a procedure to review the performance of their sub-contractors.
- The procedure developed should include regular inspection of the campsites, maintaining information of labor sourced by sub-contractors;

8.9.4 Worker's Accommodation

The EA has to supervise and monitor the activities performed by their contractor and accommodation facilities provided in the campsite. The following measures shall be provided:

- The laborers to provide with accommodation made of insulating material and locally available building material, etc. along with storage of personal belongings;
- The migrant workers with families will be provided with individual accommodation comprising bedroom, sanitary, and cooking facilities;
- The units to be supported by common latrines and bathing facilities duly segregated for male and female labor; A minimum of 1 unit to 15 males and 1 unit for 10 females shall be provided;
- The contractor shall provide a canteen facility with the facility to cook food of appropriate nutritional value respecting religious/cultural backgrounds;
- All doors and windows shall be lockable and mobile partitions/curtains shall be provided for privacy;
- Dust bins to be provided for collection of garbage and to be removed daily;
- It is also required to provide first aid box in adequate numbers; and
- Ventilation should be appropriate for the climatic conditions and provide workers with a comfortable and healthy environment to rest and spend their spare time.

8.9.5 Security

The contractors shall put in place the following security measures to ensure the safety of the workers. The following measures shall be incorporated:

- Access to the campsite shall be limited to the residing workforce;
- The contractor shall be responsible for deploying an adequate number of guards;
- Adequate, day-time night-time lighting shall be provided;
- The security personnel shall be provided with training to respect the community traditions and in dealing with, use of force, etc.; and
- The rental accommodation shall be provided with firefighting equipment and portable fire extinguishers.

8.9.6 Provisions for Drinking Water

- Access to an adequate and convenient supply of free potable water is a necessity for workers. The domestic water conforming to the IS 10500:2012 supply shall be made available by the contractor.
- The direct usage of water from bore well should not be allowed;
- The Contractor(s) should regularly monitor the quality of drinking water. In case of non-compliance with the Drinking Water Specifications, additional treatment shall be provided, or alternative sources of water supply shall be arranged; and
- All storage container of drinking water to be monitored from becoming polluted or Contaminated.

8.9.7 Cooking Arrangements

- Places for food preparation are designed to permit good food hygiene practices, including protection against contamination between and during food preparation;
- Adequate personal hygiene including a sufficient number of washbasins designated for cleaning hands with clean, running water; and
- All kitchen floors, ceiling and wall surfaces adjacent to or above food preparation and cooking areas are built using durable, non-absorbent, easily cleanable, non-toxic materials;
- Food preparation tables are equipped with a smooth, durable, easily cleanable, non-corrosive surface made of non-toxic materials.

- To ensure that the fuel need of laborers in the project area does not interfere with the local requirements, necessary arrangements for the supply of fuel to the laborers shall be done by the contractor.

8.9.8 Waste Water Generation

- There will be generation of wastewater from the campsite. About 80% of the water used shall be generated as sewage/wastewater.
- Contractors to ensure that the campsite is equipped with a septic tank and soak pit for disposal of sewage. It is also recommended that the stormwater and sewage system should be separated. The surface water drainage shall include all necessary gutters, downpipes, gullies, traps, catch pits, manholes, etc.
- Sanitary and toilet facilities are constructed of easily cleanable materials. Sanitary and toilet facilities are required to be cleaned frequently and kept in working condition.

8.9.9 Medical facilities

The following medical facilities shall be provided by contractors for the construction workers:

- A first-aid centre shall be provided for the labor within the construction site equipped with medicines and other basic facilities;
- Adequate first aid kits shall be provided in the campsite in an accessible place. The kit shall contain all type of medicines and dressing material;
- The contractor shall identify and train an adequate number of workers to provide first aid during medical emergencies;
- Regular health check-ups shall be carried out for the construction laborers every six month and health records shall be maintained;
- Labours should have easy access to medical facilities and first aider; where possible, nurses should be available for female workers;
- First aid kits are adequately stocked. Where possible a 24/7 first aid service/facility is available.
- An adequate number of staff/workers is trained to provide first aid; and
- Information and awareness of communicable diseases, AIDS, etc. shall be provided to workers.

9. Monitoring and Evaluation

The Project requires detailed supervision, monitoring, and evaluation of the impact on the social aspects. Monitoring is the periodical checking of planned activities, which provides midway inputs, facilitates changes, if necessary, and provides feedback to Project Authority for better management of project activities. It helps in making suitable changes and modifications in safeguard documents during project implementation. Evaluation on the other hand assesses whether the activities have achieved the intended goal and objectives. Thus, monitoring and evaluation are critical to measuring the project performance and fulfilment of project objectives.

To carry out this, PMU has made specific arrangements. The executing agency has a dedicated unit to deal with the social and environmental safeguards. This unit is headed by Director Safeguards who is assisted by full-time Social Safeguards and Environmental Experts. To ensure compliance with the World Banks' social safeguard issues Director Safeguards will monitor and evaluate routine activities. Half-yearly Environmental and Social Audit, of ESMF implementation, will be done by the Technical Audits and Quality Control Consultants. Progress on social safeguards and other issues will be flagged in the MPR and QPRs.

9.1 Safeguards Supervision

This will be done by PMU with the support of PIU and consultants. All the sub-projects will be visited at regular intervals by PMU to check if all safeguard requirements are met and to identify any issues that need to be addressed. PMU should submit quarterly progress reports to The World Bank on safeguards implementation.

9.2 Concurrent Monitoring and Quarterly Reporting

The concurrent internal social monitoring will be done as part of the regular monitoring by the PIU, Implementing Agencies, and TAQAC. However, PMU, with the help of an in-house Social Specialist will do the regular social monitoring of sub-projects for safeguards compliance.

9.3 Safeguards Monitoring Plan

Apart from the quarterly monitoring reports submitted to the World Bank, once every year, the PMU will prepare a report of the environmental and social situation in the project districts including data and analysis of relevant parameters as given in the plan below. This

report also should give a listing of relevant new legislation and regulations that have a bearing on the environmental and social performance of the project. PMU will submit this report to The World Bank.

9.4 Independent Safeguard Audits

The PMU will appoint Independent Project Implementation Quality Audit Consultants with expertise in social and environmental safeguards to conduct a half-yearly project quality audit, which will include Environmental and Social Audit of selected sub-projects for compliance with the ESMF.

9.5 Right to Information and Disclosure

The Jammu and Kashmir Right to Information Act 2004 gives the right to persons to obtain any document or information relating to the affairs of the state or public body. In addition to the provisions of the above Act, the JTFRP provides for voluntary disclosure of information and project documents in English, Hindi, and Urdu on the Government and implementing agencies' websites for public consumption.

10. Grievance Redressal Mechanism

Grievance Redressal Mechanism is a process to address people's grievances related to land acquisition, resettlement, and rehabilitation, or any other social issue arising out of the project-related activities; executing agency will establish two bodies, one at a local level (site level) and another at District level. In case, the grievances are not resolved at these two levels, then they will be forwarded to R&R Committee at the Divisional level for this project which will be established under the Divisional Commissioner, Jammu/Srinagar. The grievances will be registered at the Project site. The local level grievance committee will try to resolve the case in a maximum of 14 days. In case the aggrieved person is not satisfied with the decision delivered at the local level or the grievance/s is not resolved, the same shall be forwarded to the district level committee, headed by District Collector. No grievance can be kept pending for more than a month which means the committee has to meet every month. Executing Agency through PMU, JTFRP will monitor the implementation of the decision of the committee. In case the aggrieved party is not satisfied with the proposed redressal measures, it can approach the Divisional Level Redressal Committee, headed by Divisional Commissioner, Jammu/Srinagar. If the aggrieved party is not satisfied with the decision delivered or the committee is not successful in resolving the grievance/s, they can approach the court of law at their own expenses. The committees' composition is detailed below:

10.1 Composition of Grievance Redress Committee (GRC) at various levels of the project

- A. **Grievance Redress Committee at Local Level:** This committee/cell will work at the local level i.e. site level. This will be comprised of the following members:
- a. Engineer from PMU
 - b. Assistant Executive Engineer (PIU)
 - c. Site Engineer (PIU)
 - d. Local Revenue officer
 - e. Social Safeguard Officer
 - f. Ward Member/Halqa Panchayat member
 - g. Women representative (Retired Officer/Academicians/Development Professional)
- B. **Grievance Redress Committee at District Level:** In case of grievance/s are not addressed at the local level or PAP/ aggrieved person is not satisfied with the decision delivered at local level, he/she can approach to the grievance redressal committee constituted at the district level. The following will be the composition of the committee.

- a) District Collector
- b) Director/Head PIU (Convener)
- c) Nodal officer of the Project Component (PMU)
- d) Nodal Officer (Social Safeguards, PMU)
- e) Representative of PRIs
- f) A Prominent Women (Retired Officer/Academicians/Development Professional)
- g) A senior representative of SC/ST Welfare Board

C. **Division Level Redressal Committee (DLC):** In case, grievance/s are not addressed at the local and district level, the same will be forwarded to the Divisional Level Redressal Committee through PMU. The committee will provide a major platform to people who might have objections for the decisions taken at the two previous levels. The committee will look into the grievances of the people and will assign responsibilities to implement the decisions of the committee. This Committee (after formation) will be convened by the Chief Executive Officer, ERA/JTFRP, and headed by Divisional Commissioner Jammu/Srinagar. This committee should meet every quarter to solve any grievance/s and will decide within 03 months of receiving the grievance/complaint. Nodal Officer (Social Safeguards) will coordinate the meetings. This committee will also provide policy-related directions to the Grievance Redressal Committee and the participating departments about land acquisition and resettlement and rehabilitation.

The following will be the composition of the committee:

- a. Divisional Commissioner, (Chair)
- b. Chief Executive Officer, JPFRP/JK ERA (Convener)
- c. Heads of participating departments
- d. Director Technical (PMU/JTFRP)
- e. A senior representative, one each from BC & EBC and SC & ST Welfare
- f. A senior representative of the revenue department
- g. A senior representative of the Disaster Management Department
- h. Social Safeguard Specialist (Nodal officer, PMU)
- i. A prominent women representative (Retired/ Development Professional/Academician)
- j. A PRI representative
- k. A representative of PAPs who can articulate well.

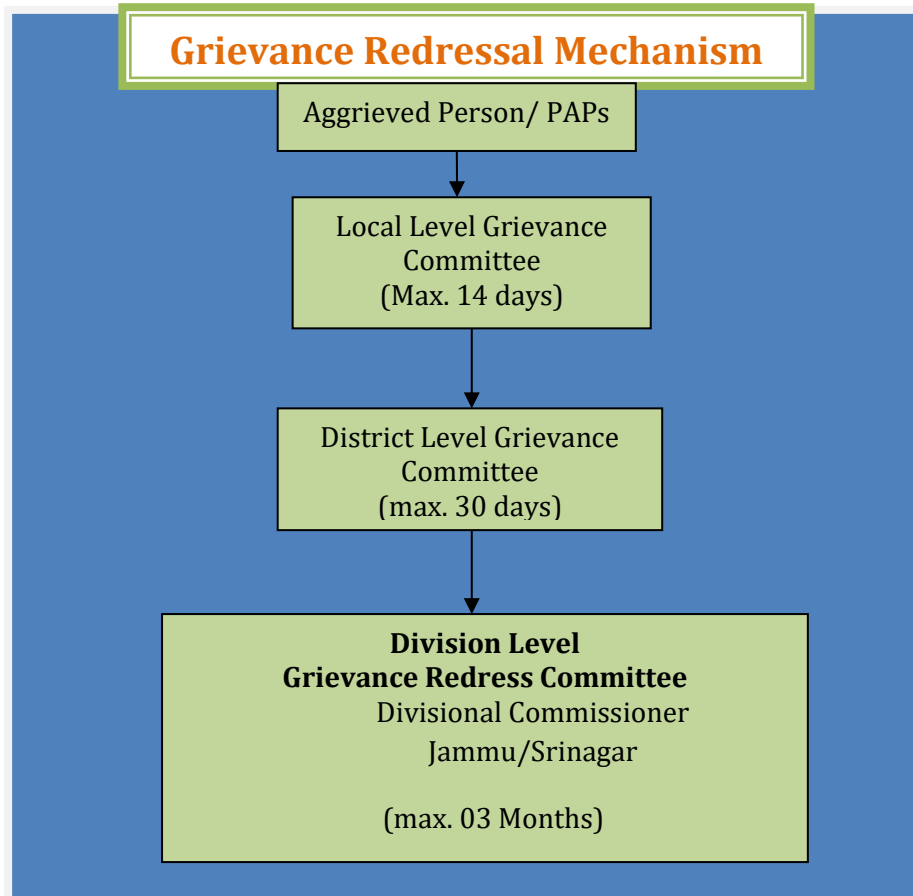


Figure 2: Structure of GRM

10.2 Approach to GRC

Project Affected Person/aggrieved party can approach GRC for the redress of their grievances through **any** of the following modes:

1. **Web-based:** The grievance corner will be provided at the website of PIU/PMU so that the affected person can register their complaint online.
2. **Telecom-based:** If needed a toll-free number will be issued by the PMU/ PIU so that affected people can register their complaints through telephone / mobile phone to the PIU/PMU office.
3. **Through LGC:** The LGC will collect the problems & issues of the community or affected persons and pass on the same to PIU/PMU and try to resolve them. A grievance register will be maintained by the contractor/PIU at each site office. The phone number of the concerned engineer shall be displayed at the site so that the aggrieved person can contact the concerned site engineer in case of an emergency.

4. **Through PMU:** PAPs/aggrieved party can register/file grievance/s directly to the PMU also. PMU will enrout the same through PIU to the site engineer who will try to resolve it within the stipulated time and the rest process will follow.

Besides the grievance redress mechanism of JTFRP, the state has an online grievance monitoring system known as Awaz-A-Awam (People's voice). The PAPs can also lodge their grievance online at <http://www.jkgrievance.nic.in>.

10.3 Legal Options to Aggrieved persons/PAPs

In case PAPs are not satisfied with the decision of GRC at the local/district level and Divisional Level committee, they are free to approach the court of law on their own will and expenses at any time to redress their grievance/s. The general public and PAPs specifically will be informed about the Grievance/s redress committee and mechanism through public consultations, disclosures, and distribution of PIBs. All PIBS will be translated into Urdu and will be distributed to the PAPs.

11. Institutional Arrangement

11.1 Institutional Arrangement in the project

A project steering committee has been set up for the overall strategic guidance and monitoring of the project. It is headed by Chief Secretary and comprises of all involved line departments and additionally departments of planning, environment and social welfare. A Project Management Unit (PMU) for the project (JTFRP), housed in Jammu & Kashmir Economic Reconstruction Agency (JK ERA) is responsible for the overall management of the “Jhelum Tawi Flood Recovery Project (JTFRP)”. This PMU is headed by Chief Executive Officer (CEO). Social Development Specialist has been positioned in PMU to provide assistance and support to Director Safeguards to address all safeguard-related issues during documentation, execution, and implementation of ARAP (wherever required) and monitoring.

The Chief Executive Officer (JKERA/JTFRP) will be responsible for overall coordination, reporting, technical assistance, monitoring, and budgeting of all the components associated with the project. The CEO will have the administrative and financial powers for the implementation of the project including the implementation of ARAP wherever required. The Chief Executive Officer (CEO) will be supported by Director Technical, Director Safeguards, Director Planning and Coordination, Director Disaster Management, Executive Engineers, AEEs, and Social Development Specialist. The PMU will be responsible for providing overall policy guidance, training, and capacity-building support to PIU (JK ERA) to ensure compliance with World Bank’s Safeguard Policies and applicable Union Territories and other acts, notifications, guidelines, etc. Director Safeguards with the assistance of a Social Development Specialist in EA will ensure that all social safeguards issues are complied with as detailed out in Social Management Plan. Social issues will be coordinated by Social Development Specialist (SDS) within the PMU and PIU. PMU will be assisted by Project Management Consultants (Technical Assistance and Quality Audit Consultants) for technical support and advice, monitoring and impact evaluation, etc.

11.2 Implementation Stage

The sub-project does not involve involuntary displacement, land acquisition, and livelihood loss either temporary or permanent. The Project Implementation Unit is headed by the Project Manager (Transport) in JK ERA. Overall civil work shall be carried out under his supervision and guidance. Director Safeguards with the support of the Social Development Specialist in PMU, JK ERA will ensure compliance with the WB policies and other provisions

applicable to the project. For this sub-project, Only Social management Plan needs to be implemented during the execution of the sub-project.

Annexures

Annexure 1: Environment and Social Screening Data Sheets

Part A: General information

1. Name of the sub-project	
2. Type of proposed activity (tick the applicable option and provide details)	
• Road	√
• Bridge	
• Fire Station	
• Hospital/Health Facility	
• Educational Institute	
• Building for Livelihoods	
• Flood Infrastructure Related	
• Other Public Building	
• Any Other (Please Specify)	
3. Location of the proposed sub-project	
• Name of the Region	Kashmir (J&K)
• Name of the District	Baramulla/Bandipura
• Name of the Block	
• Name of the Settlement	Hamary, Sultanpora, Nowgam, Lalipora, Goshiboor, Jalpur
• Latitude	
• Longitude	
4a. Proposed Nature of Work (tick the applicable options)	
• Minor Repairs	
• Major Repairs/Rehabilitation	
• Upgrading/Major Improvement	√
• Expansion of the facility	
• New Construction	
• Any Other	
4b. Size of the sub-project (approx. area in sq. mt/hac or length in mt/km, as relevant)	
5. Land Requirement (in hac./sq.mt.)	
• Total Requirement	Nil (No land required, PIU certified that work will be done in the available RoW)
• Private Land	Nil
• Govt. Land	Nil
• Forest Land	Nil
6. Implementing Agency Details (sub-project level)	
• Name of the Department/Agency	PIU-ERA (Kashmir)
• Name of the contact person	Mr. Abdul Wahid
• Designation	Project Manager
• Contact Number	+91-7006152713
• E-mail Id	projectmanager049@gmail.com
• Date on which it was carried out	15.09.2019
• Name of the Person	Vikash Sharma/ Yaadullah Shah

• Contact Number	+9419125803/ 9622672672
• E-mail Id	jkerasocial@gmail.com / yaadshah@gmail.com

Part B (1): Environment Screening

Question	Yes	No	Detail
1. Is the sub-project located in whole or part within 1 km of the following environmentally sensitive areas?			
a. Biosphere Reserve		No	
b. National Park		No	
c. Wildlife/Bird Sanctuary		No	
d. Wildlife/Bird Reserve		No	
e. Important Bird Areas (IBAs)		No	
f. Habitat of migratory birds (outside protected areas)		No	
g. Breeding/Foraging/Migratory route of Wild Animals (outside protected areas)		No	
h. Area with threatened/rare/ endangered fauna (outside protected areas)		No	
i. Area with threatened/rare/ endangered flora (outside protected areas)		No	
j. Reserved/Protected Forest		No	
k. Other category of Forest		No	
l. Wetland		No	
m. Natural Lakes		No	
n. Rivers/Streams		Yes	
o. Swamps/Mudflats		No	
p. Zoological Park		No	
q. Botanical Garden		No	
4. Is the sub-project located in whole or part within 500m of any of the following sensitive features?			
a. World Heritage Sites		No	
b. Archaeological monuments/ sites (under ASI's central/state list)		No	
c. Historic Places/Monuments/ Buildings/Other Assets (not listed under ASI list but considered locally important or carry a sentimental value)		No	
d. Religious Places (regionally or locally important)		Yes	Mosque
e. Reservoirs/Dams		No	
f. Canals		No	
g. Public Water Supply Areas from Rivers/Surface Water Bodies/Ground Water Sources		No	

4. What is the High Flood Level in the sub-project area?			
5. Is any scheduled/protected tree like Chinar, Mulberry or Deodar likely to be affected/ cut due to the project?		No	
6. Is the sub-project located in a landslide/heavy erosion prone area or affected by such a problem?		No	
7. Is sub-project located in an area that faces water paucity or water quality issues?		No	

Part B (2): Result/Outcome of Environmental Screening Exercise

1	Environment Impact Assessment Required	No
2	Environment Clearance Required	No
3	Forest land Clearance/Diversion Required	No
4	Tree Cutting Permission Required	Yes
5	ASI (Centre/State) Permission Required	No
6	Permission from ULB/Local Body/Department Required	Yes
7	Any other clearance/permission required	No

Part C (1): Social Screening

1	1. Does the sub-project activity require acquisition of land? a. Private Land (sqmts/hac.) b. Govt. Land (sqmts/hac.) c. Forest Land (sqmts/hac.)	(No land required; work will be done in the available RoW)
2	Does the proposed sub-project activity result in demolition/removal of existing structures?	No
	a. Number of public structures/buildings	No
	b. Number of common property resources (such as religious/cultural/drinking water/wells/etc.)	No
	c. Number of private structures (located on private or public land)	No.
3	Does the proposed project activity result in loss of crops/trees?	No
4	Does the proposed project activity result in loss of direct livelihood/employment?	No
5	Does the proposed activity result in loss of community forest/pastures on which nearby residents/local population are dependent?	No
6	Does the proposed project activity affect scheduled tribe/caste communities?	No

--	--	--

Part C (2): Result/Outcome of Social Screening Exercise

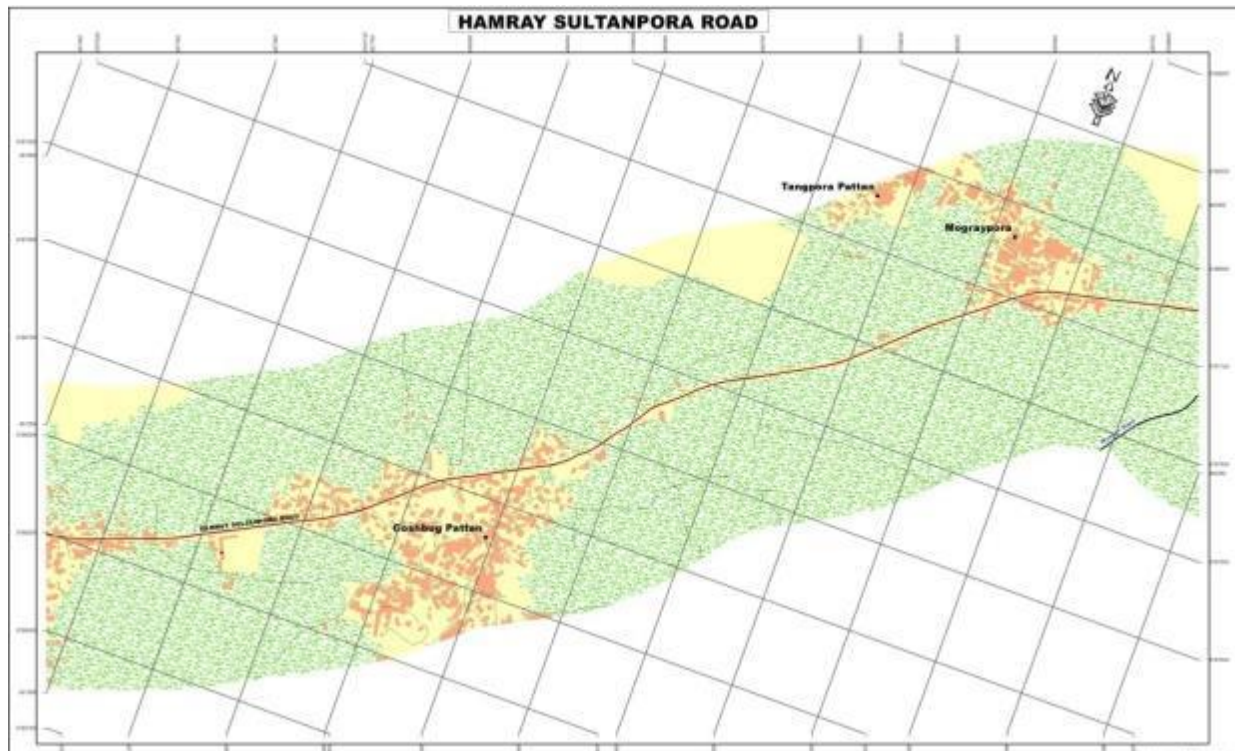
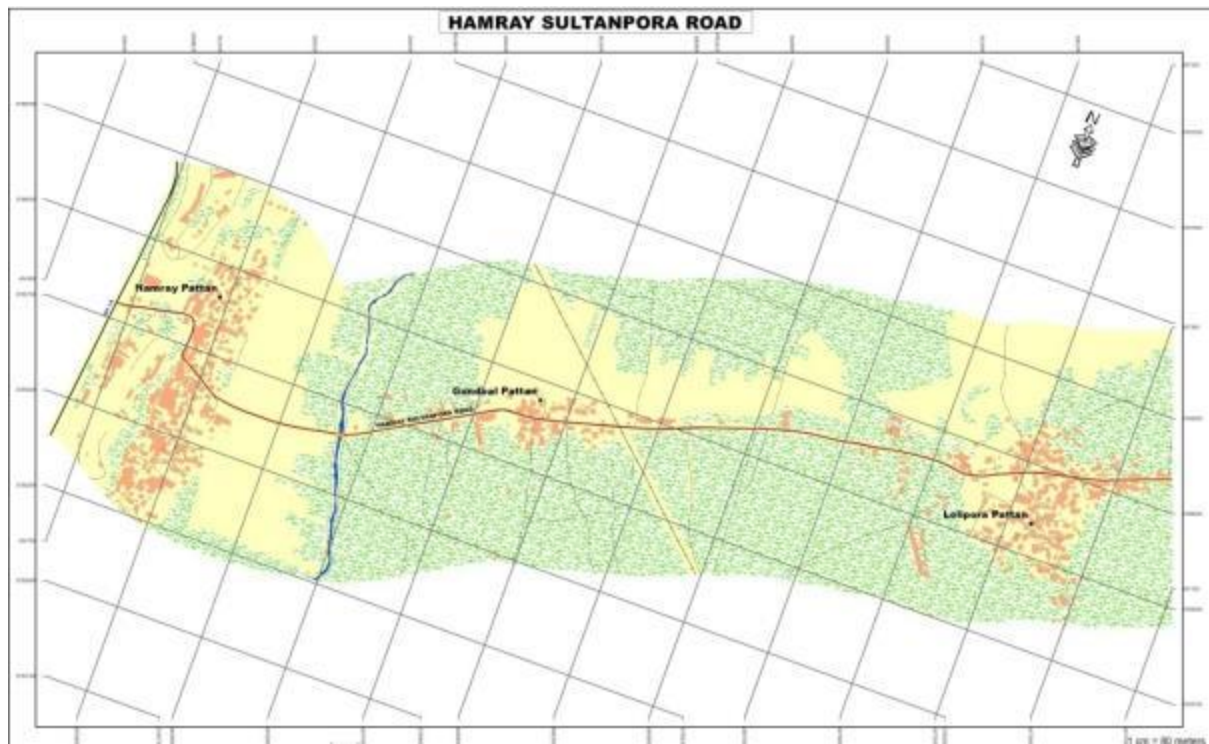
Sl.No	Result/Outcome	Outcome
1	Answer to all the questions is 'No' and only forest land is being acquired	No SIA/RAP required
2	Answer to any question is 'Yes' and the sub-project does not affect more than 200 people (i.e. either complete or partial loss of assets and/or livelihood)	No RAP is required
3	Answer to any question is 'Yes' and the sub-project affects more than 200 people (i.e. either complete or partial loss of assets and/or livelihood)	No SIA/RAP required

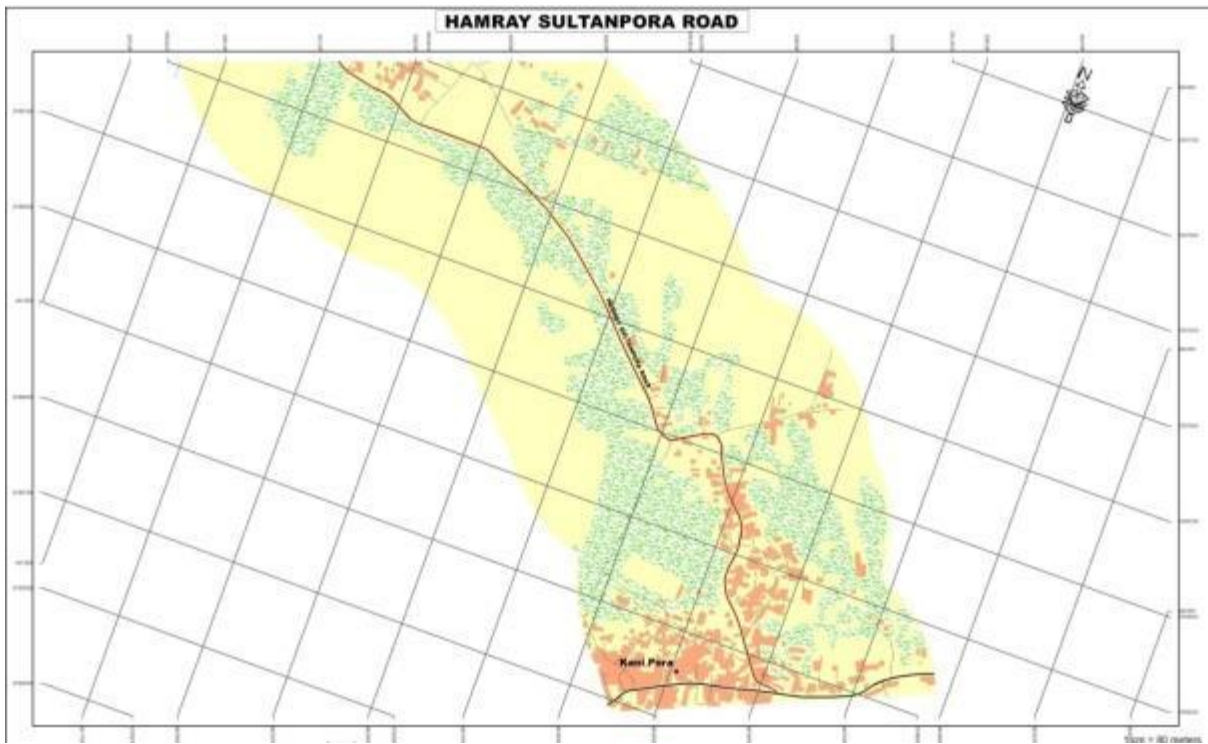
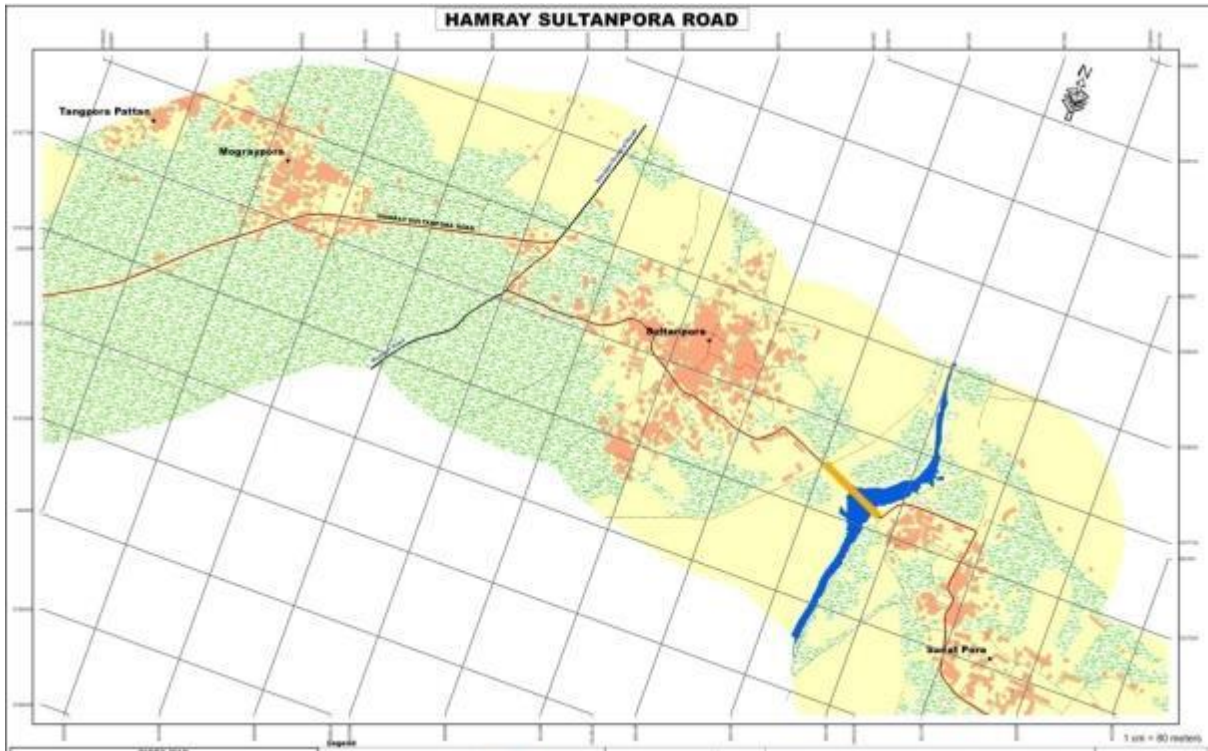
Outcome of Screening:

As per the screening exercise, the proposed sub project does not have significant environmental and social issues. The proposed sub-project is only the Improvement & Up-gradation of the existing road and does not involve land acquisition of private or government land. Wherever the required land width is not available, the construction will be carried out in the available land width. Modification in the design has been completed as a part of the mitigation measures.

However, in order to assess the temporary impacts, existence of squatters and encroachers on the site SIA required for the proposed subproject. SIA study will also assist as tool for preparation of Social Management Plan for the sub-project.

Annexure 2: Geo Location of the sub-project road





Annexure 3: Encumbrance Free Certificate issued by PIU.



Government of Jammu and Kashmir
Economic Reconstruction Agency
2nd floor Commercial Complex, Rambagh, Srinaga
E-mail:-projectmanager049@gmail.com
0194-2443922



No. ERA/PMT/20 /1126

Date: 07/9/20


Undertaking for encumbrance free existing RoW

Sub-project Road: Construction/Strengthening/Up-gradation of Hamray-Sultanpora-Nowgam Road upto Sumbal Bridge

The Chief Engineer R&B Department Kashmir vide his letter No. CE/RBK/HD/7165 dated 14.06.2019 has certified the RoW of the road namely Rambagh to Civil Secretariat " Minimum 5.5 meter".

It is hereby certified that the up-gradation and strengthening of this road for a length of 12.38 Km under JTFRP is restricted to this existing and available RoW. It is also certified that there are no residential, commercial, religious structures or any CPR in the existing RoW.

Hence, the RoW is encumbrance free.


Project Manager (Transport) /
Project Manager (JKPCC Works)
J&K ERA/JTFRP

Annexure 4: RoW confirmation by Chief Engineer (PWD) Kashmir

Government of Jammu & Kashmir
OFFICE OF THE CHIEF ENGINEER PW (R&B) DEPARTMENT KASHMIR.

The Director / Nodal Office,
J&K Economic Construction Agency (ERA)
Jammu Tawi Flood Restoration Programme
(JTFRP) Kashmir.

No: -CE/RBK/HD/ 7165

Dated: -14-06 2019.

Subject:- Preperation of DPR's for 12 Road Projects to be taken up by ERA/JTFRP in Kashmir Division under World Bank Funding Assistance (PMU-JTFRP) Reg: Providing of Latest ROW.

Reference:- Your office letter No: ERA/DAK/92/118-132 dated: 22.04.2019.

Sir,

As desired, vide your office communication referred to above for the captioned subject, in this context the requisite information has been sought from concerned Executive Engineer's for ROW of the following roads shown the status against each for favour of information and further necessary action at your end please.

However, the further verification can be obtained from Revenue department.

S.No	Name of Road	District	Status	ROW
01	Strengthening / Upgradation of Sangam Khudwani road	Anantnag	Single Lane	Min-22'-6"
02	Upgradation of Pampore Pulwama Road	Pulwama	Intermediate	ROW 50'-0"
03	Kadabal Lasjan Rambagh including allied links	Srinagar	Single Lane at Places intermediate	ROW 26'-0"
04	Upgradation of Parimpora Soibugh	Budgam	Single Lane/ at Places intermediate	ROW 5.00 Mtr
05	Hajin Ajas via Saidnara	Bandipora	Single Lane	ROW 5.5 Mtr
06	Construction of Rigid Pavement of IG Road Peerbagh Bridge to Humhama Chowk	Srinagar	Double Lane	ROW 21 Mtr
07	Upgradation of Kawahar Bala Payeen	Baramulla	Single Lane	ROW 4.5 to 5 Mtr
08	Construction of Rigid Pavement to Eastern Foreshore Road (Bari Nambal)	Srinagar	Double Lane	ROW 21 Mtr
09	Shadipora.Khanpeth Sumbal Road	Bandipora	Single Lane	ROW 5.5 Mtr
10	Bijbehara to Karihama National Highway via Kitriteng	Anantnag	Single Lane	ROW Min 21'-6"
11	Construction of Rigid Pavement of IG Road Rambagh to Civil Sectt Srinagar	Srinagar	Double Lane	ROW 21 Mtr with Bottle necks
12	Upgradation of Hamray Sultanpora Nowgam to Sumbal Bridge	Baramulla. Bandipora	Single Lane	ROW 5.5 Mtr

Yours faithfully,

V. W. G. R.
PM (T)
17/6/19

17/6/19
CHIEF ENGINEER PW (R&B)
Deptt. Kashmir.

No:- ERA/DK/92/1088
Dt:- 18-06-2019

Annexure 5: Newspaper notification for inviting objections

THE DAILY TAMEEL IRSHAD

2021 16

Government of Jammu & Kashmir
J&K Economic Reconstruction Agency (ERA)
Project Management Unit (JFRP)
(World Bank Funded)

Public Notice

Subject: Up-gradation of Roads in Kashmir Division of UT of Jammu & Kashmir under JFRP

This is for the information of public in general and those likely to be benefitted/affected in particular that the following road sub-projects have been taken up for up-gradation within the existing width-of-road/right-of-way under the World Bank funded Jhelum & Tawi Flood Recovery Project by Jammu and Kashmir Economic Reconstruction Agency in Kashmir Division of the UT of J&K.

S. No.	Name of the sub-project	District	Length of the road	Major settlements along the road
1	Hamaray Sultanpora from Nowgam to Sumbul Bridge.	Baramullah	12.690 kms	Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam.
2	Shadipura Khanpeth Sumbal road.	Baramullah / Bandipora	6.00 kms	Shadipora, Rakh Shilyat, Jirgam, Najin, Pazhaspora, Gund Khalil, Turgam, Khanpeit
3	Hajin Ajas Road Via Saidnara Road.	Bandipora	7.186 kms	Koshum Bagh, Rakhi Hajan, Sadurkote, Sadhunhara, Gund Prang Ajas
4	Parimpora-Soibugh Road.	Srinagar /Budgam	7.927 kms	Abansa, Sarifabad, Bemina, Hajibagh, Pethmakhama, Gotapora
5	Sangam Khudwani Road.	Anantnag	4.750 kms	Sangam, Hassain Pora Tavela, Arwani, Wanpoh, Qaimoh
6	Bijbehara waghama Road via katriteng.	Anantnag	Main: 7.340 kms Link 1.050 kms	Bijbehara, Hayar, Waghama, Hassain Pora Tavela

Objections if any, as far as Right of Way is concerned, duly supported by authentic documentary evidence, shall be received in the office of the undersigned either through email or by post on the address given below within 07 days from the date of publication of this notice in the newspaper.

Sd/-Director Safeguards, J&K ERA
2nd Floor, ERA Complex Rambagh Srinagar,
J&K, Pin 190009;
Email: directorsjkera@gmail.com

DIPK NO: NB-3514-21

News
Kashmir Images

Srinagar, Thursday September 16, 2021

Government of Jammu & Kashmir
J&K Economic Reconstruction Agency (ERA)
Project Management Unit (JTFRP)
(World Bank Funded)

2nd Floor ERA Complex, Rambagh, Srinagar
2nd Floor JKPC Building, Panama Chowk, Ball Head Complex, Jammu

PUBLIC NOTICE

Subject: Up-gradation of Roads in Kashmir Division of UT of Jammu & Kashmir under JTFRP

This is for the information of public in general and those likely to be benefitted/affected in particular that the following road sub-projects have been taken up for up-gradation within the existing width-of-road/right-of-way under the World Bank funded Jhelum & Tawi Flood Recovery Project by Jammu and Kashmir Economic Reconstruction Agency in Kashmir Division of the UT of J&K.

S. No.	Name of the sub-project	District	Length of the road	Major settlements along the road
1	Hamaray Sultanpora from Nowgam to Sumbul Bridge.	Baramulla	12.690 kms	Hamray, Tramba Gund, Rakh Haigam, Wussan, Gundi Jahangir, Sadat Pora, Sumbal, Tanga Pora, Bulagam.
2	Shadipura Khanpeth Sumbal road.	Baramulla /Bandipora	6.00 kms	Shadipora, Rakh Shilvat, Tirgam, Najin, Parihaspora, Gund Khalil, Turgam, Khanpeit
3	Hajin Ajas Road Via Saidnara Road.	Bandipora	7.186 kms	Koshum Bagh, Rakhi Hajan, Sadurkote, Sadhunhara, Gund Prang Ajas
4	Parimpora-Soibugh Road.	Srinagar /Budgam	7.927 kms	Abansa, Sarifabad, Bemina, Hajibagh, Pethmakhama, Gotapora
5	Sangam Khudwani Road.	Anantnag	4.750 kms	Sangam, Hassain Pora Tavela, Arwani, Wanpoh, Qaimoh
6	Bijbehara waghama Road Via katriteng.	Anantnag	Main: 7.340 kms Link 1.050 kms	Bijbehara, Hayar, Waghama, Hassain Pora Tavela

Objections if any, as far as Right of Way is concerned, duly supported by authentic documentary evidence, shall be received in the office of the undersigned either through email or by post on the address given below within 07 days from the date of publication of this notice in the newspaper.

DIPK-NB: 3514/21
DATED: 15/09/2021

Sd/=
Director Safeguards, J&K ERA
2nd Floor, ERA Complex Rambagh Srinagar, J&K, Pin 190009;
Email: directorsgjkera@gmail.com

Annexure 6: Reconfirmation of RoW by PMU



Government of Jammu and Kashmir
J&K Economic Reconstruction Agency
Jhelum Tawi Flood Recovery Project
2nd floor ERA Complex, Rambagh, Srinagar
2nd Floor JKPC Building Railhead Complex Jammu



Subject: Encumbrance-free sites for up-gradation of roads under JTFRP (Kashmir Division).

Whereas J&K ERA (K) as PIU for the road sub-projects in Kashmir Division certified the Right of Way for all the 09 roads being encumbrance-free. The revenue records of 03 roads viz., 1. Construction of Rigid pavement of IG Road Rambagh to Civil Secretariat Road in Srinagar. 2. Construction of Rigid pavement of IG Road Peerbagh Bridge to Humhama Chowk and 3. Improvement and Up-gradation of Parimpora-Soibugh Road was available. Accordingly, documents have been shared with the WB for approval.

However the RoW provided by the PIU (K), in absence of relevant land records could not be verified for 06 roads viz.,

1. Hamray-Sultanpora from Nowgam to Sumbal Bridge road, 2. Shadipora Khanpeth Sumbal Road, 3. Hajin Ajas Road Via Saidnara Road , 4. Parimpora-Soibugh Road (got notified inadvertently instead of Eastern foreshore road) , 5. Sangam Khudwani Road, 6. Bijbehara Waghama Road via Katriteng

The matter of 06 roads was discussed and deliberated upon in-house and with the team of the World Bank in different meetings for resolution. It was agreed that PMU will notify in the newspapers and invite objections from people who thinks that their assets has affected or likely to be affected due to execution of sub-projects under JTFRP. Accordingly, notification for inviting objections was issued in two daily newspapers on 16/09/2021 in Kashmir Images and the daily Tameel Irshad for 06 roads (mentioned above), detailing the name of the roads its scope, and the villages/habitations likely to be affected/benefitted.

The objections were supposed to be received in the office of Director Safeguards (Kashmir) within 07 days after the publication of this notification. Despite the lapse of more than a month, no objection has been received in the office of Director Safeguards either through email or post.

Therefore, RoW within which the roads are being up-graded/constructed is deemed to be encumbrance-free.

NO. ERA/DSA/PS/94-99

DT:- 25-10-2021

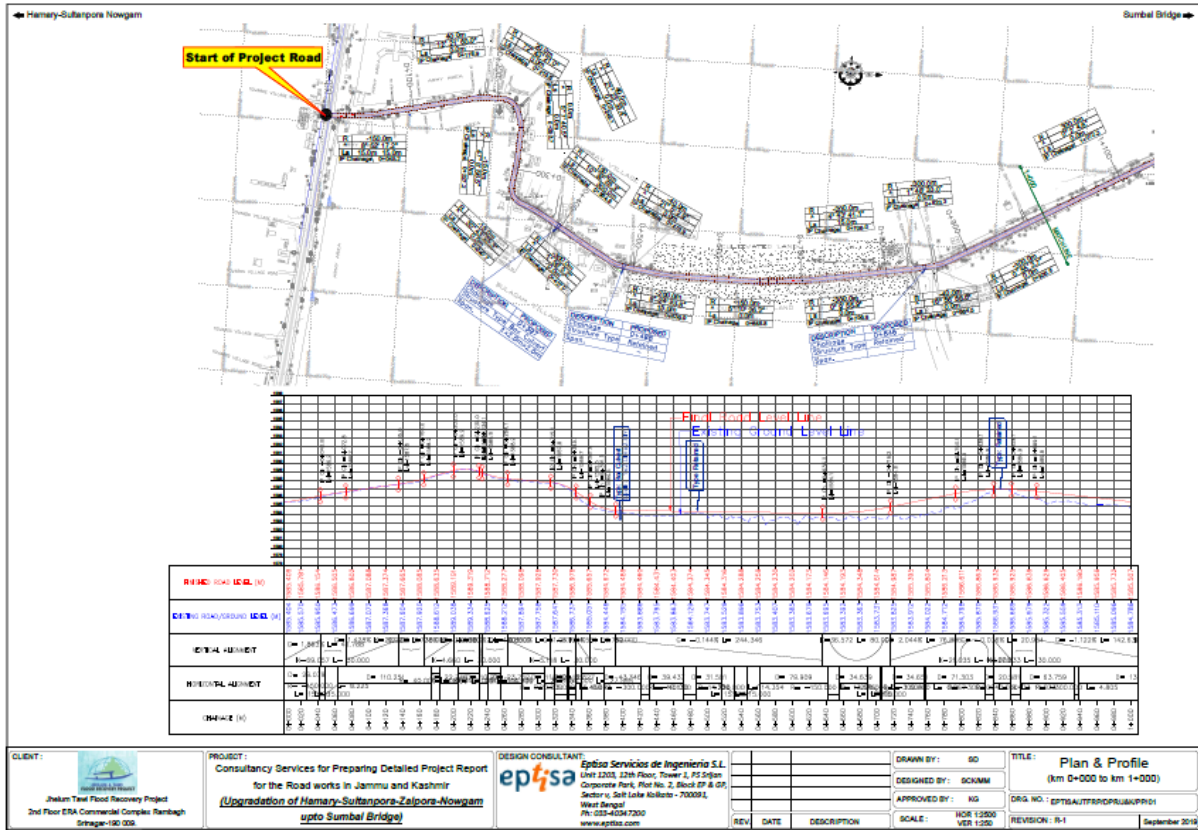
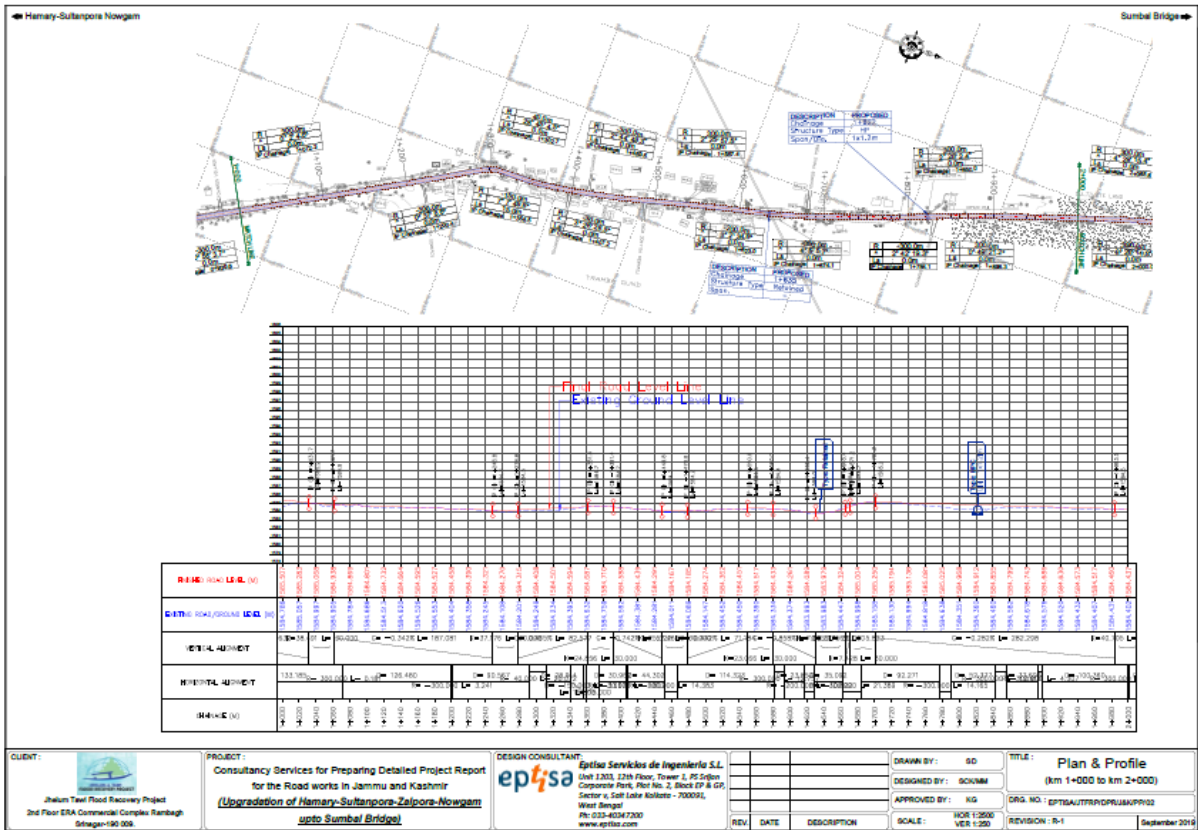
Director Safeguards,

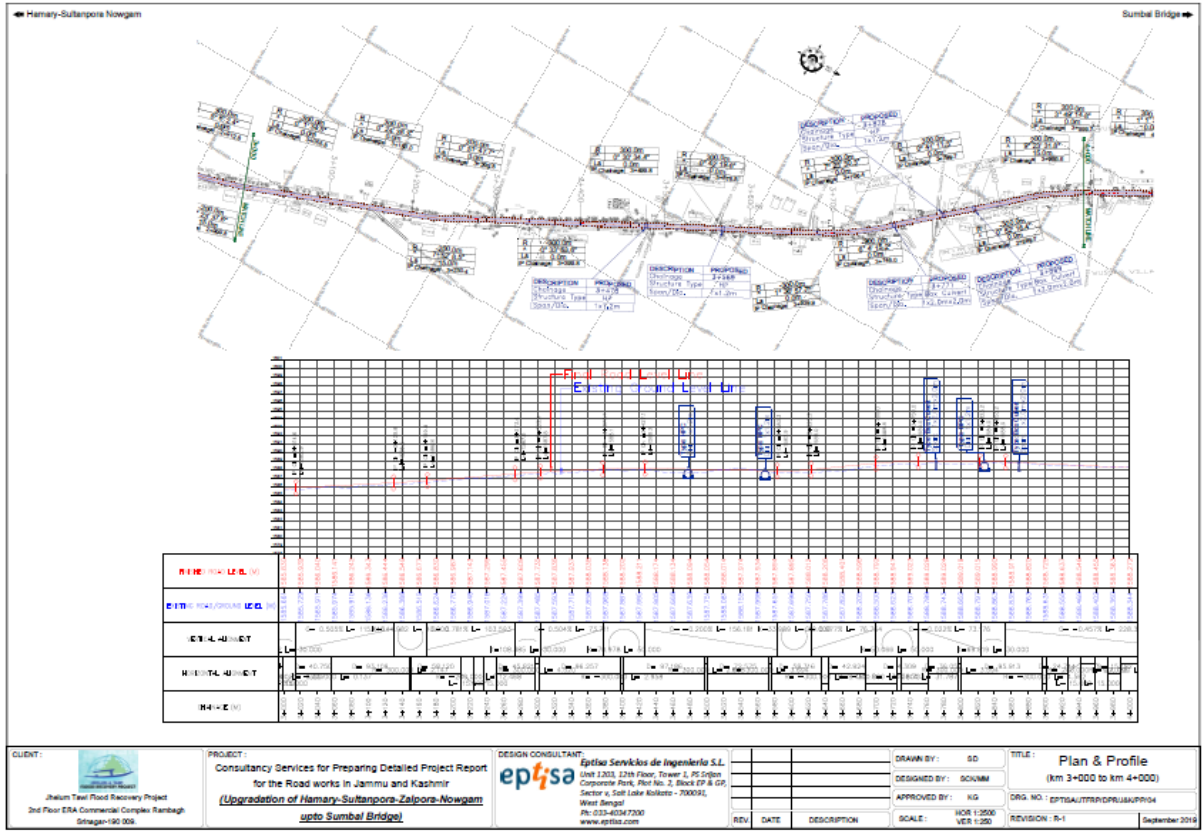
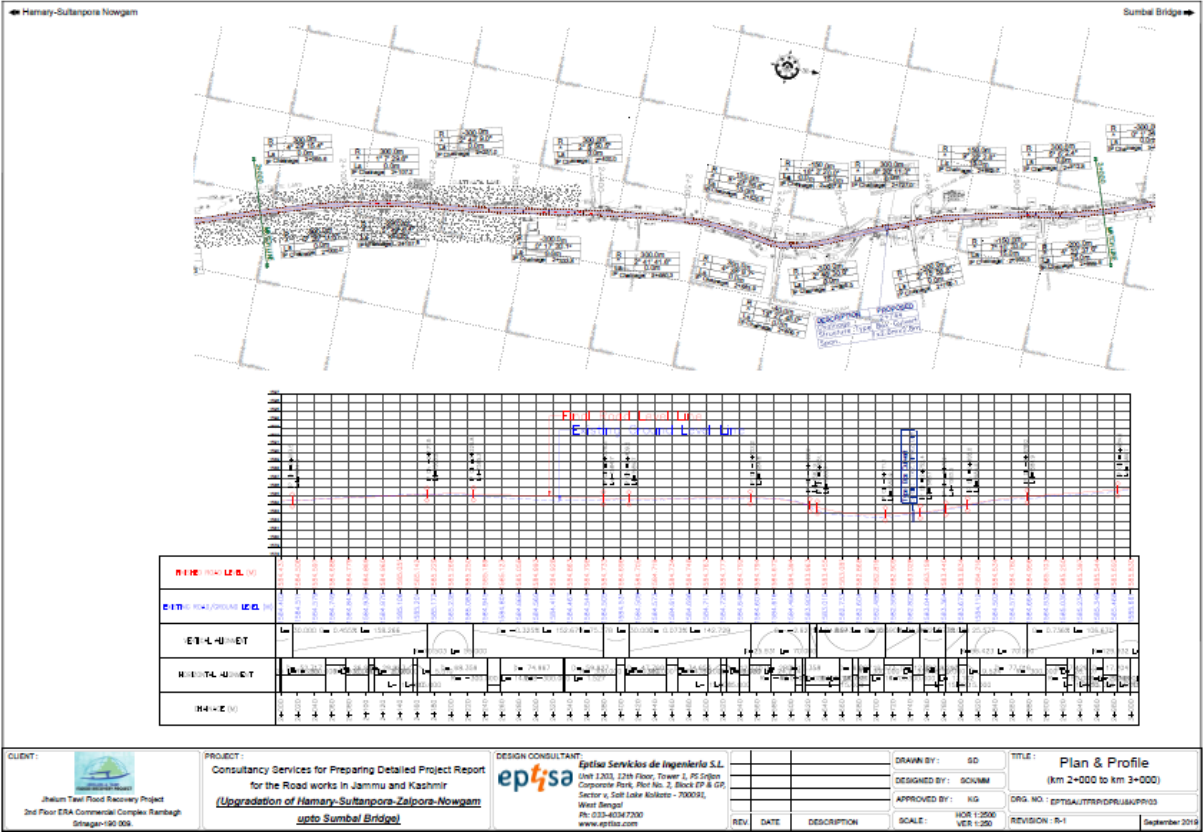
JK ERA/JTFRP

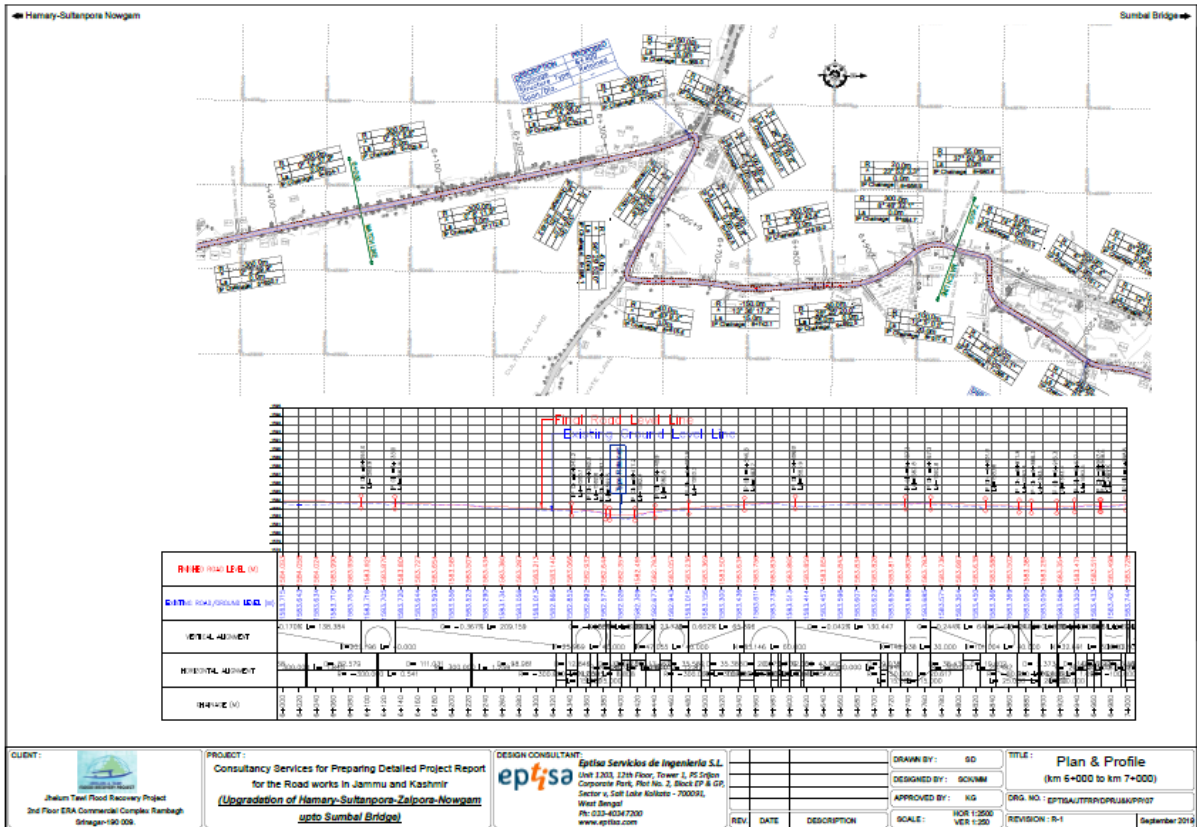
Copy to:-

1. Chief Executive Officer, J&K ERA for kind information
2. Director Kashmir, J&K ERA for information
3. Project Manager (T), J&K ERA Kashmir for information
4. Environmental Expert, J&K ERA for information
5. Social Expert, J&K ERA for information
6. Team Leader, TAQAC for information

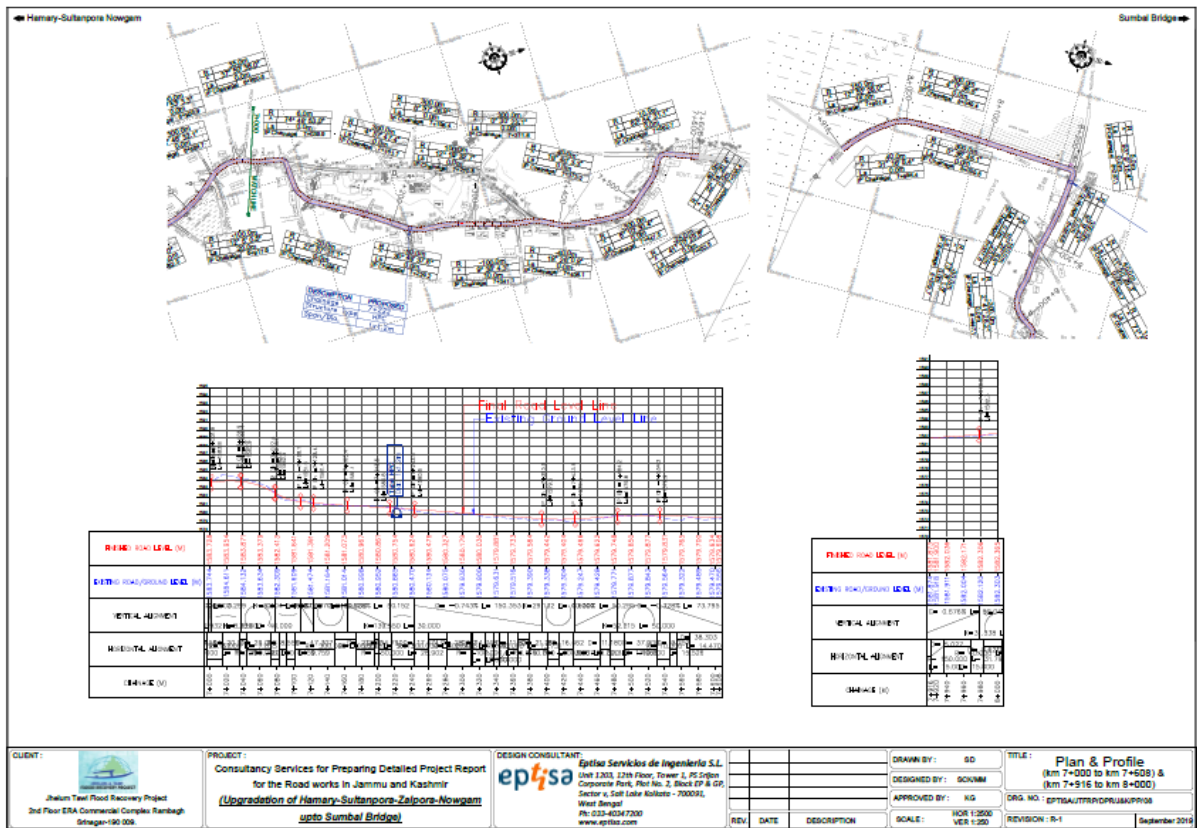
Annexure 7: Plan and Profile



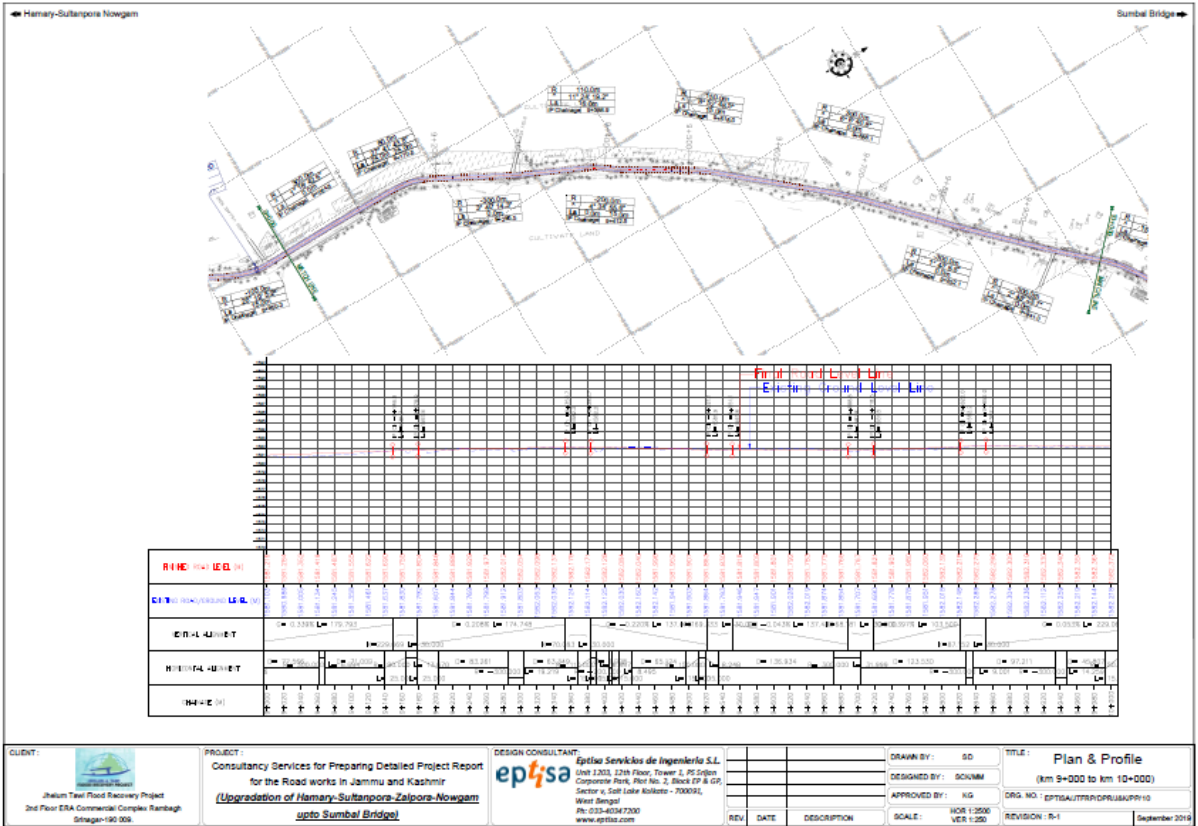
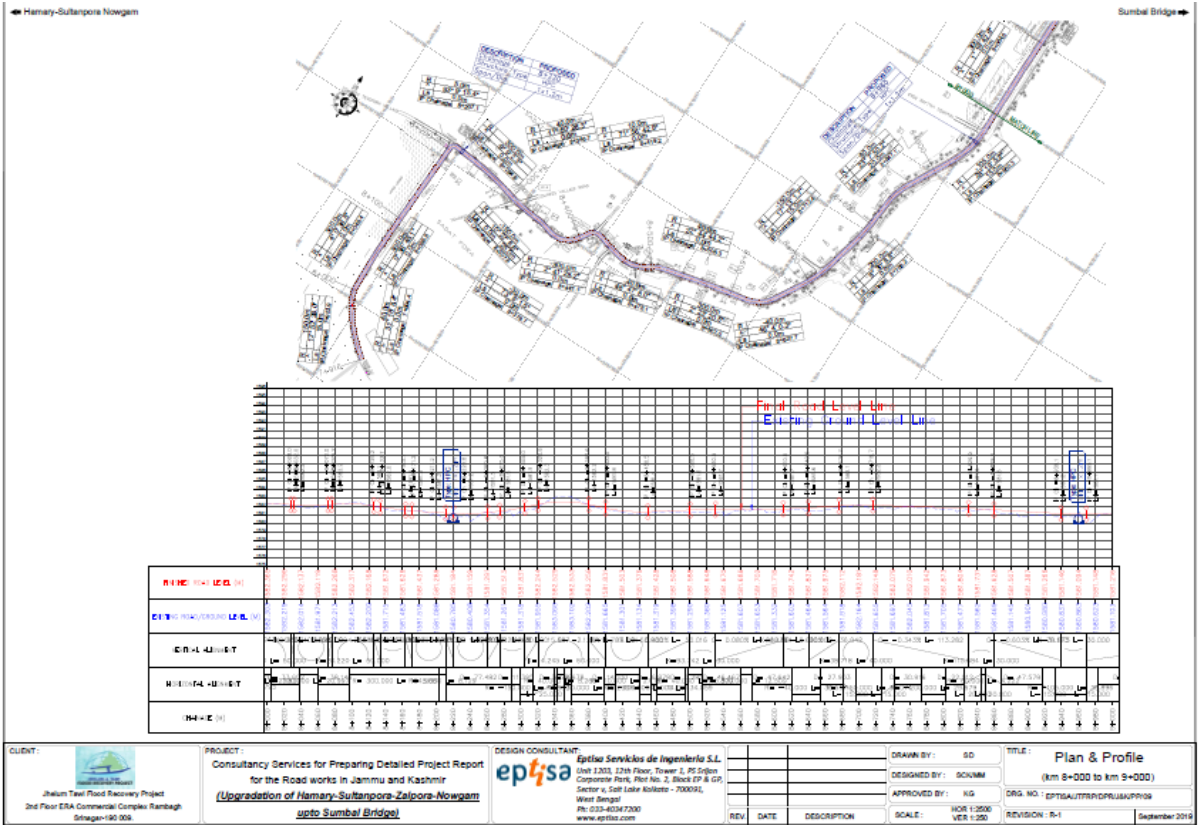


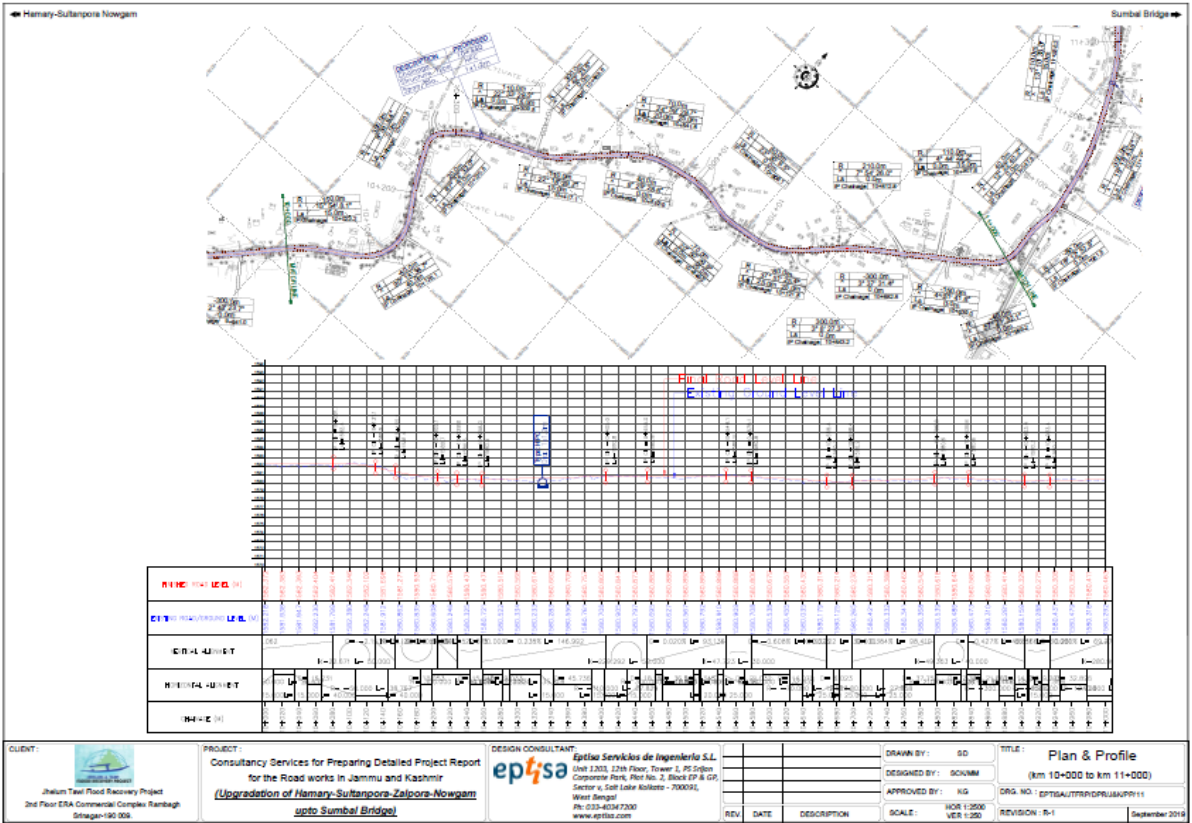


CLIENT: Jhelum Trust Flood Recovery Project 3rd Floor ERA Commercial Complex Rambagh Srinagar-190 008	PROJECT: Consultancy Services for Preparing Detailed Project Report for the Road works in Jammu and Kashmir <u>Upgradation of Hamary-Sultanpora-Zaipora-Nowgam upto Sumbal Bridge</u>	DESIGN CONSULTANT: Ep4sa Servicios de Ingenieria S.L. Over 1203, 12th Floor, Tower 1, PS-Orion Corporate Park, Plot No. 2, Block EP & GP, Sector v, Salt Lake Kolkata - 700094, West Bengal Ph: 033-40347200 www.ep4sa.com	DRAWN BY: GD DESIGNED BY: SONAM APPROVED BY: KG SCALE: HOR: 1:2000 VER: 1:250	TITLE: Plan & Profile (km 6+000 to km 7+000) DRG. NO.: EPTSA/UTTR/DP/RAJ/PP/08
			REV. DATE DESCRIPTION	REVISION: R-1 September 2019

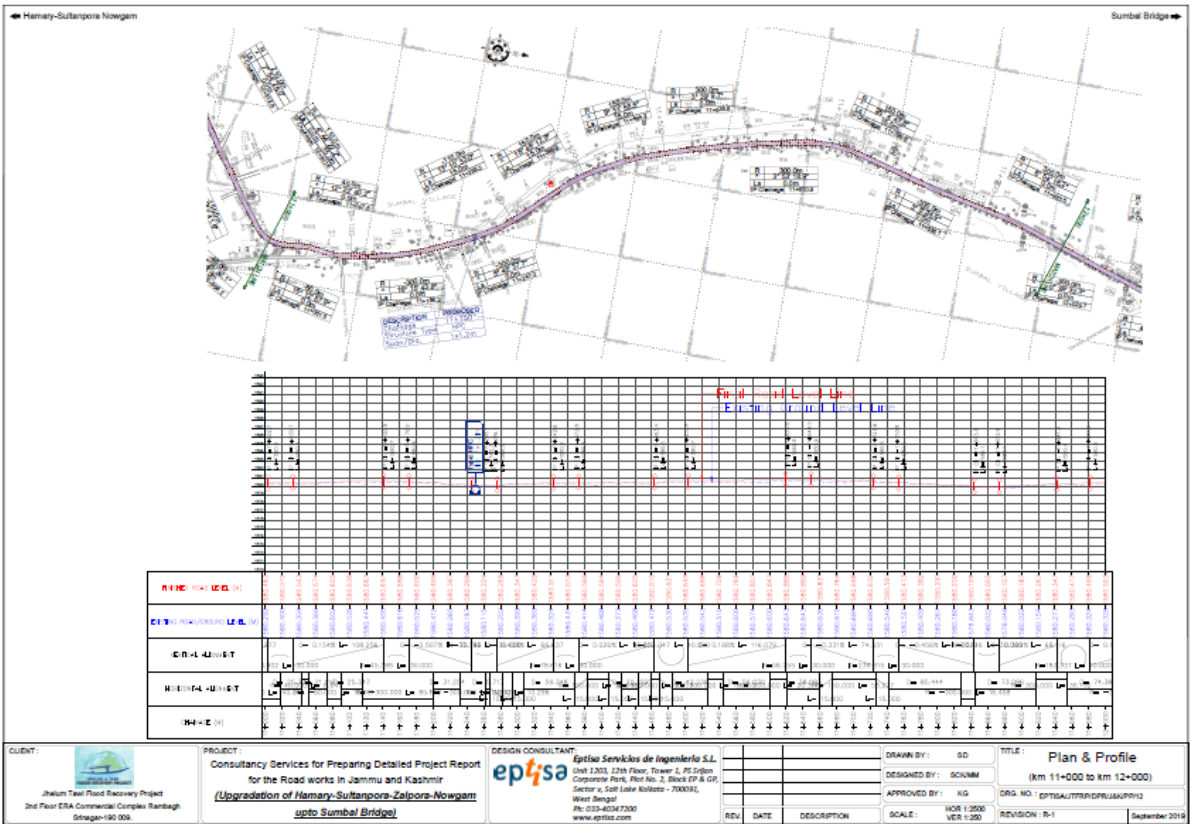


CLIENT: Jhelum Trust Flood Recovery Project 3rd Floor ERA Commercial Complex Rambagh Srinagar-190 008	PROJECT: Consultancy Services for Preparing Detailed Project Report for the Road works in Jammu and Kashmir <u>Upgradation of Hamary-Sultanpora-Zaipora-Nowgam upto Sumbal Bridge</u>	DESIGN CONSULTANT: Ep4sa Servicios de Ingenieria S.L. Over 1203, 12th Floor, Tower 1, PS-Orion Corporate Park, Plot No. 2, Block EP & GP, Sector v, Salt Lake Kolkata - 700094, West Bengal Ph: 033-40347200 www.ep4sa.com	DRAWN BY: GD DESIGNED BY: SONAM APPROVED BY: KG SCALE: HOR: 1:2000 VER: 1:250	TITLE: Plan & Profile (km 7+000 to km 7+608) & (km 7+916 to km 8+000) DRG. NO.: EPTSA/UTTR/DP/RAJ/PP/08
			REV. DATE DESCRIPTION	REVISION: R-1 September 2019

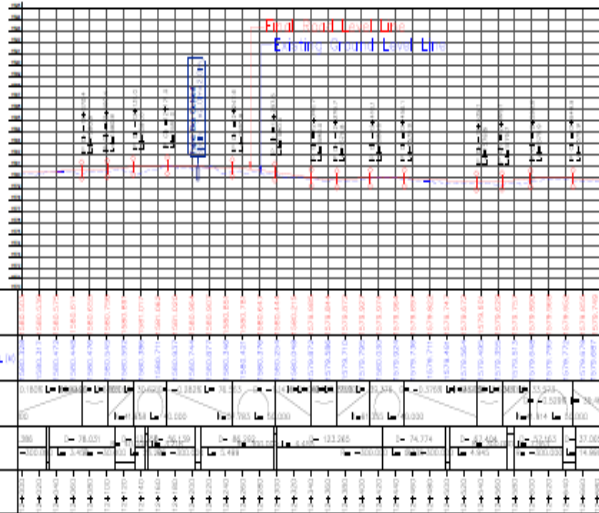
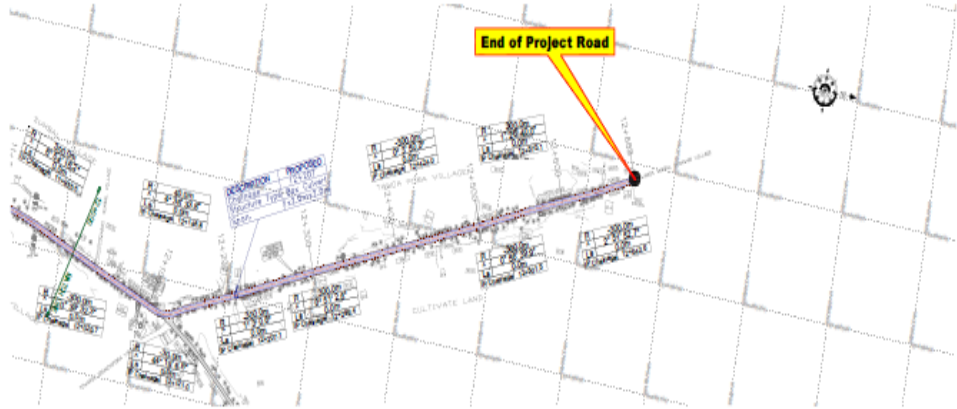




CLIENT: Jammu Tawi Road Recovery Project 2nd Floor EBA Commercial Complex Rangbeh Srinagar-190 006	PROJECT: Consultancy Services for Preparing Detailed Project Report for the Road works in Jammu and Kashmir <u>(Upgradation of Hamary-Sultanpora-Zalpora-Nowgam upto Sumbal Bridge)</u>	DESIGN CONSULTANT: Eptisa Servicios de Ingenieria S.L. Unit 1203, 12th Floor, Tower 1, PS Solgas Corporate Park, Plot No. 2, Block EP & GS Sector 9, Salt Lake Kolkata - 700091, West Bengal Ph: 033-40347200 www.eptisa.com	DRAWN BY: SD DESIGNED BY: SC/UMM APPROVED BY: KG	TITLE: Plan & Profile (km 10+000 to km 11+000)
			SCALE: HOR 1:2000 VER 1:200	DRG. NO.: EPTISA/TP/EP/RS/BA/PH11 REVISION: R-1 September 2016



CLIENT: Jammu Tawi Road Recovery Project 2nd Floor EBA Commercial Complex Rangbeh Srinagar-190 006	PROJECT: Consultancy Services for Preparing Detailed Project Report for the Road works in Jammu and Kashmir <u>(Upgradation of Hamary-Sultanpora-Zalpora-Nowgam upto Sumbal Bridge)</u>	DESIGN CONSULTANT: Eptisa Servicios de Ingenieria S.L. Unit 1203, 12th Floor, Tower 1, PS Solgas Corporate Park, Plot No. 2, Block EP & GS Sector 9, Salt Lake Kolkata - 700091, West Bengal Ph: 033-40347200 www.eptisa.com	DRAWN BY: SD DESIGNED BY: SC/UMM APPROVED BY: KG	TITLE: Plan & Profile (km 11+000 to km 12+000)
			SCALE: HOR 1:2000 VER 1:200	DRG. NO.: EPTISA/TP/EP/RS/BA/PH12 REVISION: R-1 September 2016



CLIENT:

 Jammu Taxi Road Recovery Project
 2nd Floor ERA Commercial Complex Rambagh
 Srinagar-190 009.

PROJECT:
 Consultancy Services for Preparing Detailed Project Report
 for the Road works in Jammu and Kashmir
**(Upgradation of Hamary-Sultanpore-Zalpora-Nowgan
 upto Sumbal Bridge)**

DESIGN CONSULTANT:
 **Eptisa Servicios de Ingenieria S.L.**
 Unit 1203, 12th Floor, Tower 1, PS Delfin
 Corporate Park, Plot No. 2, Block EP & GP,
 Sector 9, Salt Lake Kolkata - 700091,
 West Bengal
 Ph: 033-40347300
 www.eptisa.com

DRAWN BY:	SD
DESIGNED BY:	SOUMM
APPROVED BY:	KG
SCALE:	HOR 1:2000 VER 1:250

TITLE: **Plan & Profile**
 (km 12+000 to km 12+688)

DRG. NO.: EPTISA/TPR/DPR/UA/PP/13

REVISION: R-1

September 2019

Annexure 8: Photograph of the Roads



Road Condition



Built-up area along road



Roadside trees



Roadside trees

Annexure 9: Public Consultation (15.09.2019)



Signature sheet

Sub-project: Hamray Sultanpore - Neegon to Sumb
Public Con: 15.9.2019. Location Hamray.

<u>Name</u>	<u>Occupation</u>	<u>Address</u>	<u>Signature</u>
Riaz Beigh	Employer	Hamray	Jis
Mudisar	shopkeeper	"	Jis
Qulshad	shopkeeper	"	J's
Taswin Ahmad	farmer	"	—
Abid Hussain	student	"	Ah
Khalid Mohd	student	Hamray	kh
Shameem Ahmad	farmer	"	—
Harun Ahmad	farmer	"	h
Adil	student	"	ad
Muhammad Ahmad	student	"	Mu
Mansoor Ahmad	shopkeeper	"	Mans